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THE VALIDITY OF HEALTH SERVICE DATA GATHERED BY THE FAMILY SURVEY METHOD[1]

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INTRODUCTION

The personal interview as a method of gathering data is probably as old as speech itself. In this age of surveys it is quite commonly used by foundations, private enterprises, and governments. Many an analysis of health, behavior, income, education, and other matters pertaining to the citizenry, how they live and what opinions they hold, has had its beginnings in a house-to-house canvass.

Information gathered in this manner has been taken largely on faith. When a survey worker rings the doorbell of a home and succeeds in gaining an interview with a responsible member of the household, it is generally assumed that he comes away with information that is approximately correct. Usually this assumption has had to suffice, in lieu of any means of checking the authenticity of data thus amassed.

Such a check, however, has been possible in one of the surveys conducted by the United States Public Health Service, and it corroborates in an interesting fashion the common belief that within reasonable limits the personal interview is a dependable method of gathering information of certain types.

This survey, which was conducted in three southern counties, is part of a series of studies which the United States Public Health Service has been conducting in regard to the activities of rural health departments, with the object of determining how suitable their programs are for raising the general level of health among the people for whom they function.

The counties may be described as essentially rural, with a considerable number of inhabitants residing in communities representing suburban development from a populous urban area. The population was native-born for the most part, with 10 to 15 percent of the families being Negro. From 50 to 80 percent of the families in the different counties had gardens or were engaged in farming on some scale, although only about one-fourth of these reported farming as their

[1] From the Office of Public Health Methods, National Institute of Health, in cooperation with the Division of Domestic Quarantine.

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principal source of income. The economic level of the households in each county was doubtless above that found in most rural counties.

METHOD OF STUDY

The studies were carried on through a combination of two approaches. Clerical personnel of the United States Public Health Service spent the study year in the offices of the three health departments under review. They copied for that period records of the daily activities of the personnel—the health officer, the nurses, and whoever else might serve the population as a member of the health department staff or under its auspices. As the records were copied, a current indexed summary was kept to show the distribution of service to individuals and families in the county.

Toward the end of the study period a sample of families representative of the population in its different degrees of economic circumstance was chosen in each county for personal interview on the family way of living, illnesses over the year just past, medical care, and particularly all services received from the members of the health department staff.

The present discussion is set forth primarily as an appraisal of the family survey as a means of gathering health service data. For that restricted purpose the material at hand will be presented briefly to show the difference between what service the health departments recorded as given to the surveyed families during the 12 months of the study, and what service the families reported as received from the health departments during essentially the same period. The comparisons will cover the following topics: The proportion of the population served by members of the health department, the types of service rendered, and the places of service.

Approximately 1,000 families were surveyed in each county. The sample in County A represents about 18 percent of the population within the area served by the health department, in County B about 10 percent, and in County C about 14 percent.

VALIDITY OF THE SURVEY DATA

Proportion of families served.—The percentage of surveyed families receiving service from the separate members of the health department staffs is shown in table 1. The slight differences between the percentages determined from the health department data and those arrived at from the facts supplied by the family informants point to remarkably good recollection of contacts with the health departments. It will be noted that in general the percentages under "Reported" are slightly higher than those under "Recorded" for individual members

of the health department staff, but that the "Reported" and "Recorded" figures for "All personnel" are practically the same.

TABLE 1.—*Percentage of surveyed families in each county receiving health department services of any type as determined from (a) data recorded by the health department, and (b) data reported by the family informants*

Health department personnel serving families	County A		County B		County C	
	Percent of surveyed families receiving service		Percent of surveyed families receiving service		Percent of surveyed families receiving service	
	Recorded	Reported	Recorded	Reported	Recorded	Reported
All personnel	52.3	54.4	27.7	29 0	71.0	73.0
Health officer	38.4	42.3	9.1	12.8	34.5	44.5
Public health nurse	47.2	43.7	23.4	26.7	55.3	58.5
Sanitation officer	11.0	16.9	6.2	2.1	35.6	35.9
School dentist [1]	33.3	41.5	----------	1.7	14.5	28.8

[1] No dental service provided by the health department in County B.

The nurses in each county rendered a variety of services in that they had a share in nearly all of the activities of the health departments except the work of the sanitation officer. They carried out a large part of the work incident to the health supervision and maternity programs; assisted the health officer in school examinations; aided the dentist, where there was one; and helped in the immunization and communicable disease programs. That their participation in these services was recognized by the families is indicated by the very general reporting of the public health nurse for all but the sanitation services. In all three counties about the same percentage of families reported service from the public health nurses as was recorded by the health department.

The families reported service from the health officer and from the school dentist more frequently than it was recorded. In County A the percentage of families reporting service from the sanitation officer was considerably in excess of the percentage recorded, and in County B it was somewhat less. In County C the two sets of data agreed as to the proportion of families receiving sanitation services.

The explanation for much of this variation is inherent in the nature of the subject matter covered by the data. For example, the discrepancies in regard to services by the health officer and the school dentist undoubtedly represent a certain amount of misapprehension among the family informants as to whether the nurse performed certain school services alone or as an assistant to the health officer or school dentist. In other words, the facts in most cases are second-hand to the informant. There were many instances wherein the health department records indicated a school inspection with only the nurse in attendance, or a dental examination by the school dentist, and the

family report credited the service to the health officer and nurse, the school dentist and nurse, or all three.

In County B, 18 families reported dental services received, when in fact no dental care was given in the schools in that county. The health officer and nurses in making examinations probably looked at the children's teeth, and no doubt some of this service was translated into dental care when reported by the family.

Further analyses of the data failed to reveal any explanation for the excess in County A and the deficiency in County B in the percentage of families reporting service from the sanitation officer. It is possible that in County B, where much of his work dealt with nuisances, many of the individuals served in this respect did not think of the situation in terms of service from the health department. In County C, where the family reports tallied closely with the records on sanitation services, the sanitation officer was occupied most of the year with supervision of a special privy-construction program. Inasmuch as this work necessitated that the owner or tenant be interviewed and that he be requisitioned for materials when repairs or construction were needed, one can understand why this work was so well remembered.

Close agreement between the two sets of data was shown when the families were considered by race, and also by type of locality in which they live. The divisions by race are two: White and Negro; and by locality, three: Suburban areas, small villages, and open country. Other possible variation was also sought by dividing the families into the four economic groups of comfortable, moderate, poor, and very poor, but each group showed about the same recollection of health department contacts.

Types of service rendered.—On the second division of data—types of service—the percentages refer to individuals rather than to family groups. Over 14,000 persons were included in the 3 samples of families and the possibility of error in reporting on them rather than on the 2,995 families to which they belong is, of course, much greater. In the family summaries in table 1 no account was made of services to separate individuals; if one member of a family or half a dozen members were served, the family was counted as having had contact with the health department.

Then, too, a large proportion of the services accounted for in table 2 was rendered through group work in the schools and is subject to considerable error in the reporting process. Common experience tells us that some children on coming home from school faithfully report the happenings of the day, and others fail to mention them. Some mothers listen carefully; others do not. It is not unusual for a woman to say that the several children in her family were all examined in school simply because she vaguely remembers that 3 months earlier little Johnny had said that the dentist examined his teeth that day at school.

In view of these opportunities for error, it is submitted that the percentages in table 2 on types of service do not show any invalidating divergencies between the family account and the health department record of what took place during the study year. As in table 1, the percentages are practically the same in the total, although they show considerable variation on specific items. The general consistency between the two sets of data may be described as remarkably high when one considers the number of services involved and the amount of time spanned by the informant in picking up these small details, most of which she did not experience personally.

The relatively high percentage of individuals reporting examinations and dental services is occasioned in part by the frequent reporting of a combined physical and dental examination when in fact only one or the other had been given. Furthermore, the families were inclined to report staff services rendered in specialized clinics as examination by individual members of the health department.

TABLE 2.—*Percentage of individuals in surveyed families receiving health department services of different types as determined from (a) data recorded by the health department, and (b) data reported by the family informants*

Type of health department service	County A		County B		County C	
	Percent of individuals receiving service		Percent of individuals receiving service		Percent of individuals receiving service	
	Recorded	Reported	Recorded	Reported	Recorded	Reported
All types of service	23.2	21.4	11.3	13.3	28.7	23.9
Examinations (and inspections)	14.0	19.8	4.8	9.8	11.8	16.1
Dental examinations [1] or corrections	14.3	19.3	----------	.7	4.5	12.1
Immunizations	5.1	1.7	2.8	2.8	9.3	10.0
Other services	4.0	1.5	6.6	3.5	18.5	13.8

[1] No dental service provided by the health department in County B.

Immunization of preschool and school children in County A was frequently given at the time of examination by the health officer and the nurse. While the families generally reported the examination, they often failed to report specifically that immunization service was rendered. This is in keeping with the general tendency of the families to remember the fact of service but to confuse the details.

Those services having to do with health supervision, maternity care, and the control of tuberculosis and venereal disease are grouped in table 2 under "Other." They were, as a rule, understated by the families, or perhaps to some extent reported under more general categories, such as "Examinations." The numbers in these groups are too small to yield percentages of any determining value, but one point relevant to the discussion might be made. It is likely that errors in reporting a series of services must occur, and an individual

reached by one of the above programs frequently receives more than a single service. For example, the five trips that the nurse made to Mrs. Smith down on the river road are entered on the records of the health department under the heading of "Maternity and infant service," but Mrs. Smith may remember only that the nurse dropped by on several occasions for a little conversation about the baby.

The data also reveal another circumstance that makes for discrepancy in this particular survey. In County C, 32 individuals in the family sample were recorded in the offices of the health department as having received treatment for venereal diseases, while the informants reported only 2 individuals as having received this service. No venereal-disease service was reported by the family informants in Counties A and B, although several members of these two groups of families were recorded as having received treatment. The indications are that on matters conveying a suggestion of moral turpitude data will be poorly reported. In the majority of surveys such questions probably play no part; in surveys of health they might conceivably be productive of unreliable information.

Places where service was rendered.—The third topic covered by this discussion is the places of service, of which there are three—the homes, the schools, the clinics. The health department records show that 17 percent of the sampled families were contacted in the home at some time during the year. The information gathered from the families yields 14 percent on this point. It is entirely possible that seemingly casual calls by a member of the health department, such as a visit by the nurse to deliver a birth certificate, may not have been considered by the family as a health department contact.

The discrepancy falls the other way on service in schools, the family data showing 36 percent and the health department records 31 percent. This is in line with the consistent overstatement of services rendered in the schools.

The report on the clinics is less satisfactory. The health department recorded 19 percent of the sample of families as having been seen at clinics, and the families reported 9 percent. In explanation of this, it might be pointed out that certain services, involving a goodly number of individuals, were classified as clinic services by the health department but may not necessarily have been regarded as such by the family informants. Clinic is, of course, a generic term used freely by the medical profession to denote a place of organized group treatment, but the lay person is likely to refer to such places by their specific names. In County A a large number of adults applying for work on certain Public Works projects were given physical examinations by local physicians in clinics organized by the health department for that purpose. Relatively few of those in the surveyed families who were so examined reported the service as a clinic service

and many of them failed to recognize it as a health department service at all. In County C many of the immunizations and Schick tests were reported as services received in the school or the office of the health department but were recorded by the health department as clinic activities.

Such a confusion of terms would not operate in every survey. Indeed, it is believed that this particular study constitutes a fairly severe test of the reliability of the family canvass. The informant was obliged to recall for a period of 12 months, personnel, types of service, and places of service. Many of the items she could know only if they had been reported to her. Remembrance of circumstances centering in the home, such as the illness of the members, would be much simpler than recalling the itemized relationship of the family and the individuals thereof with an outside agency.

There are other possibilities for error in data gathered from a canvass of families which it might be well to mention. The results shown in the foregoing pages might have been of a different character had many of the interviews been given by someone other than the female head of the household. The male head, a grandparent, or some other person might have been less informed and have recollected fewer contacts. It is not believed, however, that this is a circumstance so frequent as to constitute an obstacle, since a person making a house-to-house canvass does in most cases interview the female head of the family.

Again, a variation of some significance would have to be allowed for if there were extreme differences in the type of person who conducted the interviews. Workers vary in point of understanding and deftness in eliciting information, and the data which they secure will deviate accordingly. To minimize such variations only a few workers under the direction of a single supervisor were selected to conduct this series of studies. The workers were closely comparable in training and ability and had had extensive field experience. After a period of instruction and drill on the technique to be followed, each worker accompanied by the supervisor in charge conducted a series of interviews to insure that the same procedure was followed by all workers. The areas were then so assigned that most of the workers interviewed white and colored families and families residing in suburban areas, in small towns and villages, and on isolated rural premises.

SUMMARY

In summary of the foregoing, it seems that the family canvass is reliable within the limits that have generally been accepted. A comparison of the data furnished by these families with data taken from the health department records indicates that the family informants

presented from memory a close approximation of that which the health workers had set down as having taken place. Differences between the "Reported" and "Recorded" figures were usually associated with items calling for knowledge beyond the experience of the informant. The results concerning clinics were the least satisfactory, for the reason that many of the informants did not apply the term "clinic" to some familiar place where group service had been rendered. The overstatement of service from the health officer and school dentist largely reflects failure to distinguish between services classified by members of the health department staff as examinations, inspections, and dental treatments. School services rendered by the health officer, nurse, or school dentist, working alone, were frequently reported as physical examinations or physical and dental examinations with two or more staff members in assistance. The informants reported within 3 percent of the recorded figures the proportion of families served in the home, and to within 5 percent the proportion served in the school.

The comparisons afforded by their statements are offered, therefore, in testimony of the worth of the family survey as a means of gathering data relating to health service.

A STUDY OF DENTAL CARE IN DETROIT, MICH.

By ROLLO H. BRITTEN, *Senior Statistician, United States Public Health Service*[1]

In connection with the National Health Survey [2] a supplementary schedule was filled out in Detroit in order to obtain data regarding the extent and nature of dental care received in the general population of a large city. The Health Survey, which depended upon house-to-house canvassing for the collection of facts, was devoted to determining the amount and kind of serious illness and chronic disease and the amount of medical care received during the period of 1 year prior to the date of the canvass in about 84 cities and some rural areas in 19 States. The relation of the data to population and environmental factors was a major aspect.

The supplementary schedule relating to dental care in Detroit, which was filled out in the course of the regular interview, was designed to give information of a character which was not available from the original schedule. The questions on this supplementary schedule covered the following points: (*a*) When the person last saw a dentist

[1] From the Division of Public Health Methods, National Institute of Health.

[2] The National Health Inventory, of which the survey was a part, was executed by the U. S. Public Health Service, with the aid of grants from the Works Progress Administration. The project was carried out under the general direction of Dr. L. R. Thompson, Director of the National Institute of Health, George St. J. Perrott, Project Director, and Clark Tibbitts, Field Director. Others concerned with the technical aspects of the Health Survey were Selwyn D. Collins, Principal Statistician, and the author of this report. The dental survey in Detroit was made on request of the Medical and Dental Bureau of Wayne County, Dr. O. W. White, Chairman, Professional Advisory Committee.

(exclusive of visits for cleaning of teeth only);[3] (*b*) The kind of dental service received during the period of 1 year[4] (extraction, filling, replacement,[5] treatment[6] of gums).[7] The color, occupation, and industry of the household head, and the sex and age of the individual, were also entered on the schedule.

The house-to-house canvass was made in the winter of 1935–36, the work extending over a period of about 5 months. Households were selected on a sampling basis to be representative of those in the city, the group consisting of about 20,000 families.[8] The dental schedule was not added until after the house-to-house canvass had been made of about 1,000 households; but it was not thought necessary to make return visits to secure the dental information from these households, since the remaining 19,000 households were regarded as an entirely adequate sample.

The information was usually given for all persons in a household by a member who was regarded as competent to answer the questions. The enumerators, who were selected from relief rolls, were carefully trained and the work was thoroughly checked. There is every reason to believe that the procedure afforded the degree of accuracy requisite for this type of survey and that the errors in the data are largely those involved in the difficulty a person giving the information would have in recalling events which occurred some time before. The questions were simple and could be answered without ambiguity.

The population surveyed, excluding persons under 3 years of age on their last birthday, was 70,554. Because of the method of sampling, this group is regarded as being representative of the whole population of Detroit with respect to dental care. Among these persons about a third[9] were reported as having been to a dentist during the year

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[3] The entry was made in years, with fractions for less than 1 year (2/12, 1/52). Thus there was little chance that an entry meant for a number of years would be taken as meaning a number of months. A special symbol was used for "Never having been to dentist." Throughout this paper dental service reported will be understood to be exclusive of visits for cleaning of teeth only.

[4] One or more of these items could be checked for one individual, but only one check was possible for a single type of service. The information obtained, therefore, was in regard to the number of persons making one or more visits to the dentist during the year for any one of these types of treatment or for any combination of them.

[5] The enumerator was instructed to ask whether any teeth were replaced with plates, bridges, or crowns during the year.

[6] The enumerator was instructed to ask whether there were any visits to a dentist for treatment of gums or mouth conditions. He was instructed *not* to include visits for cleaning of teeth only.

[7] A further question dealt with whether the person still had any teeth the extraction of which had been recommended by a doctor or dentist. For various reasons, including the fact that the proportion of affirmative answers was higher for persons who had seen the dentist in the year than for those who had not, data on this point are not included in the paper. Since the data secured in this survey were largely the same, whether for the informant himself or for some other member of the family, consideration of this point is also omitted.

[8] The sample was obtained by an arbitrary division of the census enumeration districts into units having about the same population, every nineteenth unit being completely enumerated.

[9] This figure may be compared with that of 24 percent in the survey in 1928–31 of the Committee on the Costs of Medical Care (also 3 years of age and over). See "The Incidence of Illness and the Receipt and Cost of Medical Care Among Representative Families: Experiences in Twelve Consecutive Months During 1928–31" by I. S. Falk, Margaret C. Klem, and Nathan Sinai. Publication No. 26 of the Committee on the Costs of Medical Care. 1933.

preceding the date of the canvass (referred to in this paper as "study year"). Of these, 11 percent received no dental service other than the extraction of teeth. In the belief that extractions frequently represent the treatment of economic necessity rather than the treatment of choice, they have not been included in most of the accompanying tables.

The estimates of dental care based on visits to dentists for specified treatment were much less for the Negro population in Detroit than

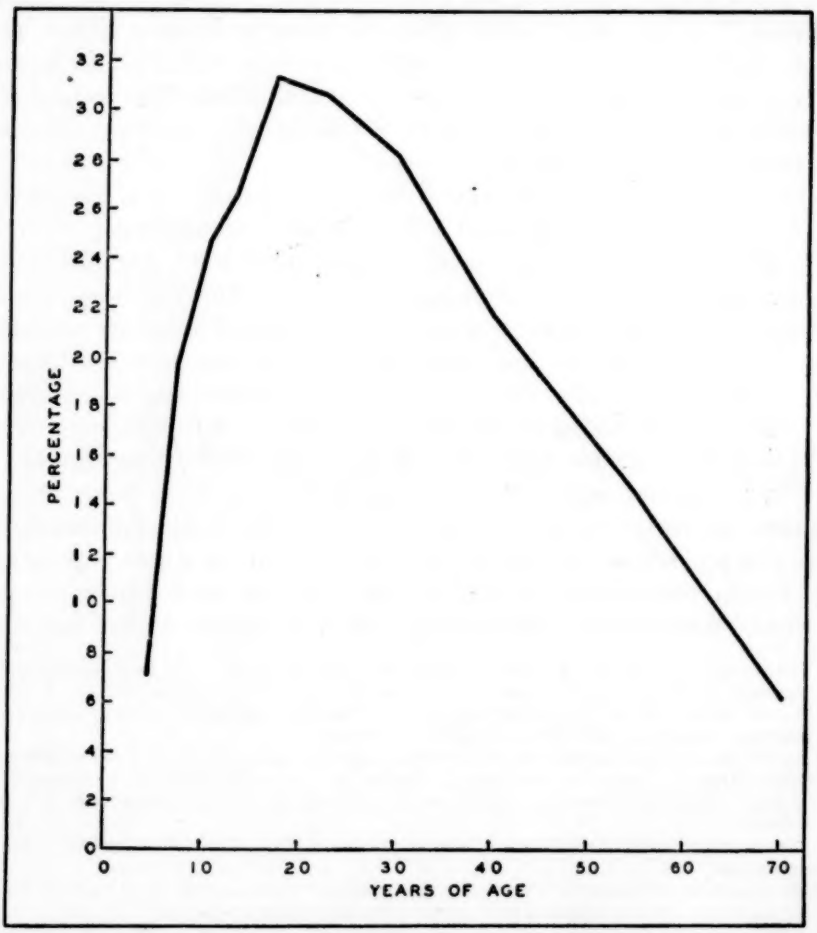

FIGURE 1.—Percentage of white persons of specific ages who were reported to have received dental care (exclusive of extractions only) during the study year.

for the white population. To avoid the confusion of combining the figures for white and colored persons, most of the following tables have been limited to white persons. Certain comparisons by color will be made later in this paper.

As would be expected, the percentage of persons reporting visits to dentists during a year varies greatly with their age. Among white

persons from 3 to 5 years of age, only 7 percent were reported as having seen a dentist during the year (excluding visits for extractions only). This percentage rose to a maximum of 31 in the age group 15–19 and gradually decreased during adult life, so that for persons over 65 years of age the percentage was only 6. The curve by age is shown in figure 1. (Data in Appendix, table A.) The comparison suggests that visits to dentists may be related to urgency associated with dental disease, since visits increase up to adult life. It is believed

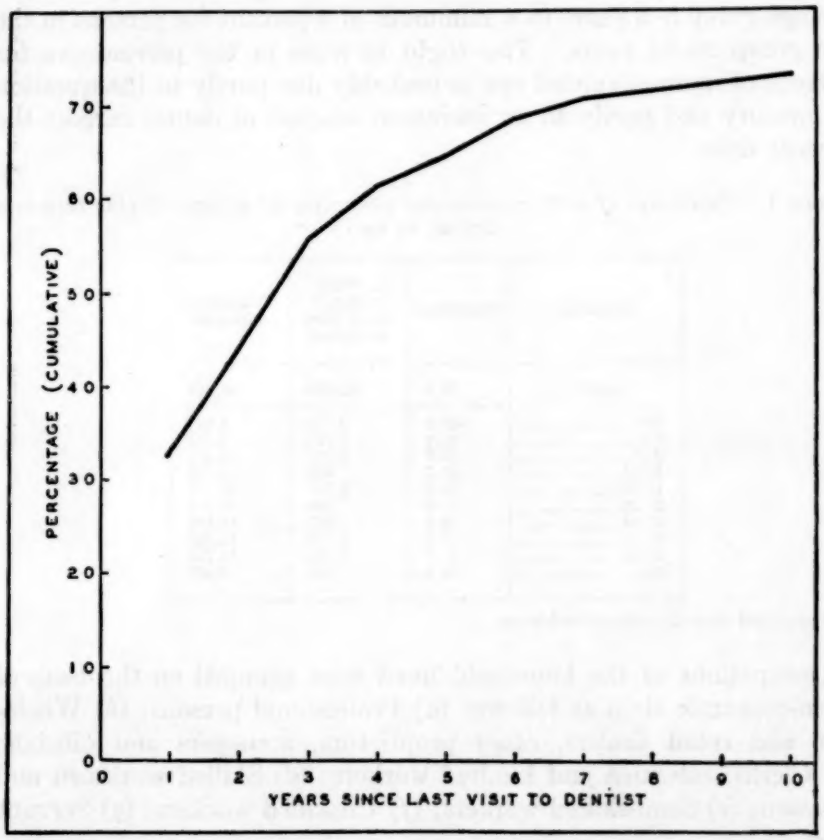

FIGURE 2.—Percentage of white persons (3 years of age and over) by time since last reported visit to the dentist.

that this is also true of attack by dental caries. Data secured in this survey were not of a character to explain the rapid decline in adult life.

The information received in the survey was not entirely limited to the experience of the year prior to the date of the visit, as one of the questions asked was how long since a person had been to the dentist. For periods of more than a year, however, it was not possible to exclude visits for extractions only. Figure 2 gives the cumulative per-

centage of white persons 3 years of age and older against the time since the last reported visit to the dentist. (Data in Appendix, table B.) It will be observed from the table that about 65 percent were reported to have been to the dentist within 5 years and about 19 percent as never having been to the dentist.

It is obvious that the proportion of persons who were reported as never having been to a dentist will be especially affected by the factor of age. In table 1, accordingly, this percentage is given for specific age groups. It varies from a maximum of 85 percent for persons in the age group 3–5 years to a minimum of 8 percent for persons in the age group 25–34 years. The slight increase in the percentages for persons of more advanced age is probably due partly to the question of memory and partly to an increased amount of dental care at the present time.

TABLE 1.—*Percentage of white persons who were reported as never having been to a dentist, by age*

Age group	Percentage	Number who had never been to dentist	Population surveyed
Total [1]	18.5	12,280	66,463
3–5	85.0	3,113	3,663
6–8	46.4	1,751	3,772
9–11	26.7	1,047	3,925
12–14	22.7	929	4,089
15–19	16.6	1,041	6,278
20–24	11.6	694	5,974
25–34	8.2	977	11,934
35–44	8.9	1,107	12,439
45–64	10.7	1,262	11,775
65+	12.4	295	2,370

[1] 3 years and older; includes unknown age.

Occupations of the household head were grouped on the basis of socio-economic class as follows: (*a*) Professional persons; (*b*) Wholesale and retail dealers, other proprietors, managers and officials; (*c*) Clerks, salesmen and kindred workers; (*d*) Skilled workmen and foremen; (*e*) Semi-skilled workers; (*f*) Unskilled workers; (*g*) Servant class.

Table 2 shows for each of these socio-economic classes, the percentage of white persons, 3 years of age and over, who were reported to have received dental care (exclusive of extractions only) during the period of 1 year prior to the date of the visit. Whereas the percentage in families of which the head was a professional person is 42, it falls as low as 16 for families of which the head was an unskilled worker.

TABLE 2.—*Percentage of white persons (3 years and older) reported to have received dental care (exclusive of extractions only) during the study year, by socio-economic class of household head*

Socio-economic class of household head	Percent	Persons receiving care	Population surveyed
Professional persons	42.5	1,158	2,726
Dealers, etc	30.0	2,123	7,069
Clerks, etc	30.6	2,682	8,757
Skilled workmen and foremen	20.8	3,676	17,698
Semiskilled workers	17.2	3,313	19,245
Unskilled workers	16.3	1,416	8,690
Servants	18.3	313	1,714

The Fundamentals study of the Committee on the Costs of Medical Care [10] concluded that all persons 3 years of age and over should receive some dental care every year. Exclusive of cases where the only visit was for extractions, that was true of 42 percent of persons in families in which the household head was a professional person; inclusive of cases where the only care was for extractions, the percentage was 51.

The survey followed a period of intense depression during which dental care was probably neglected in a large part of the population. At the time of the canvass the degree of recovery in Detroit would lead one to expect that many persons would be making long postponed calls to dentists. It is reasonable to assume, therefore, that the figures shown in this analysis, especially for certain groups of the population, are somewhat in excess of what would be found during a normal period. For this reason the differences for families on various socio-economic levels may not be as great as they would be in a normal period.

The ratio of the percentage of persons receiving dental care in different socio-economic groups to that for professional persons is not uniform at different ages. The percentages and the ratio for the different age groups are therefore shown in the Appendix, table C. In order to have sufficient numbers to furnish reliable results, certain of the socio-economic groups have been combined. It is evident that the relative lack of dental care in the semiskilled and unskilled groups is very much greater for children than it is for young adults. There is also a tendency for an increasing difference in late adult life.

Table 3, giving the proportion of adults reported as never having been to a dentist, by socio-economic class of the household head, shows a very great contrast between the professional and other groups, the proportion being four times as great for the unskilled as for the professional.

[10] The Fundamentals of Good Medical Care: An Outline of the Fundamentals of Good Medical Care and an Estimate of the Service Required to Supply the Medical Needs of the United States. By Roger I. Lee and Lewis Webster Jones. Publication No. 22 of the Committee on the Costs of Medical Care. 1933.

TABLE 3.—*Percentage of white persons (20 years and older) who were reported as never having been to a dentist, by socio-economic class of household head*

Socio-economic class of household head	Percent	Number who never had been to dentist	Population surveyed
Professional persons	4.4	87	1,966
Dealers, etc	7.2	349	4,842
Clerks, etc	6.2	384	6,192
Skilled workmen	9.5	1,090	11,506
Semiskilled workers	10.5	1,323	12,594
Unskilled workers	16.3	946	5,787
Servants	10.5	128	1,222

The colored population may perhaps most easily be regarded as forming an additional socio-economic class. In table 4, therefore, the percentage of persons reported to have received dental care (exclusive of extractions only) during the year preceding the date of the visit, is shown for the professional white group, for the total white group, and for the colored. The very great contrast between the white and colored population is evident. Five times as many individuals in households of professional persons (white) were reported to have received dental care (exclusive of extractions) as in the colored population.[11]

TABLE 4.—*Percentage of persons reported to have received dental care (exclusive of extractions only) during the study year, by color, in 2 broad age groups*

	Total [1]	3 to 19 years	20 years and older
Percent:			
White:			
Professional	42.5	44.7	41.8
Total	22.3	23.2	21.9
Colored	8.4	10.2	7.5
Persons receiving care:			
White:			
Professional	1,158	335	822
Total	14,808	5,031	9,731
Colored	343	135	206
Population surveyed:			
White:			
Professional	2,726	750	1,966
Total	66,463	21,727	44,492
Colored	4,091	1,319	2,738

[1] 3 years and older; includes unknown age.

Up to this point the percentages have not been given separately for the two sexes. The differences are not sufficiently great to affect any of the comparisons which have been made, but it is of interest to note that a slightly higher proportion of women appears to have received dental care, which may be associated with greater need. (See Appendix, table D.)

[11] In this comparison no allowance can be made for possible differences in the need for dental care among white and colored persons. In view of the fact that the incidence of dental caries is known to be lower in the colored race it is clear that the need for that part of dental care associated with dental caries must be lower for colored.

It has been brought out that 33 percent of white persons were reported to have received dental care during the year before the date of the visit. Eleven percent of these persons made their visits for extractions only, 11 percent for fillings only, and 4 percent for fillings and extractions. Table 5 indicates the percentage of persons reported to have made visits for different types of treatment.[12] Various combinations are shown and also the percentage of persons who made visits for any one kind of treatment, regardless of whether they also made visits for some other kind of treatment.

TABLE 5.—*Percentage of white persons (3 years and older) who were reported to have received dental care during the study year, by type of treatment*

Type of treatment	Percent	Number
Any care	32.7	21,784
Filling only	11.2	7,466
Filling, replacement, and extraction	.5	361
Filling and extraction	4.1	2,727
Replacement only	1.1	733
Replacement and extraction	.9	606
Treatment of gums only	.6	397
Extraction only	10.5	6,976
Other combinations of above	1.4	916
Totals:		
Filling	16.9	11,242
Replacement	3.3	2,163
Extraction	16.7	11,103
Treatment of gums	1.6	1,081
Other treatment	.1	74
Unknown as to nature	2.0	1,342
Any, exclusive of extractions only	22.3	14,808
Persons surveyed		66,463

The nature of the dental care received in different age groups is shown in figure 3 (Appendix, table E). It will be noted that considerable difference exists in the relative incidence of the various types of treatment at different ages.

There is a marked difference by socio-economic class with respect to fillings and treatment of the gums and to a lesser extent in the case of replacement. For extractions, however, there is, if anything, a tendency for higher percentages in the lower socio-economic groups.[13] Where this tendency is real it would indicate the substitution of extractions for fillings. Table F, in the Appendix, gives the percentages reporting dental care and the ratio to the percentages for the professional group in four different age periods.

A similar comparison is made for the colored population in the Appendix, table G, which reveals very wide differences. White persons in the professional group showed a percentage about eight times as

[12] The fact that only 2.0 percent were recorded as having been to a dentist, with no information as to the nature of the treatment, makes us feel an additional confidence in the data covering the percentage of persons who were reported as having seen the dentist within 1 year.

[13] This is in agreement with findings based on further analysis of the data obtained in the survey reported in Public Health Bulletin No. 226 (Dental Survey of School Children, ages 6 to 14 years, made in 1933-34 in 26 States).

great as that for colored persons in the case of fillings, and large differences also for other types of treatment except extractions.

SUMMARY

As a part of the National Health Inventory, a supplementary schedule was utilized in one city (Detroit, Mich.) to determine the amount and kind of dental care received by a representative sample

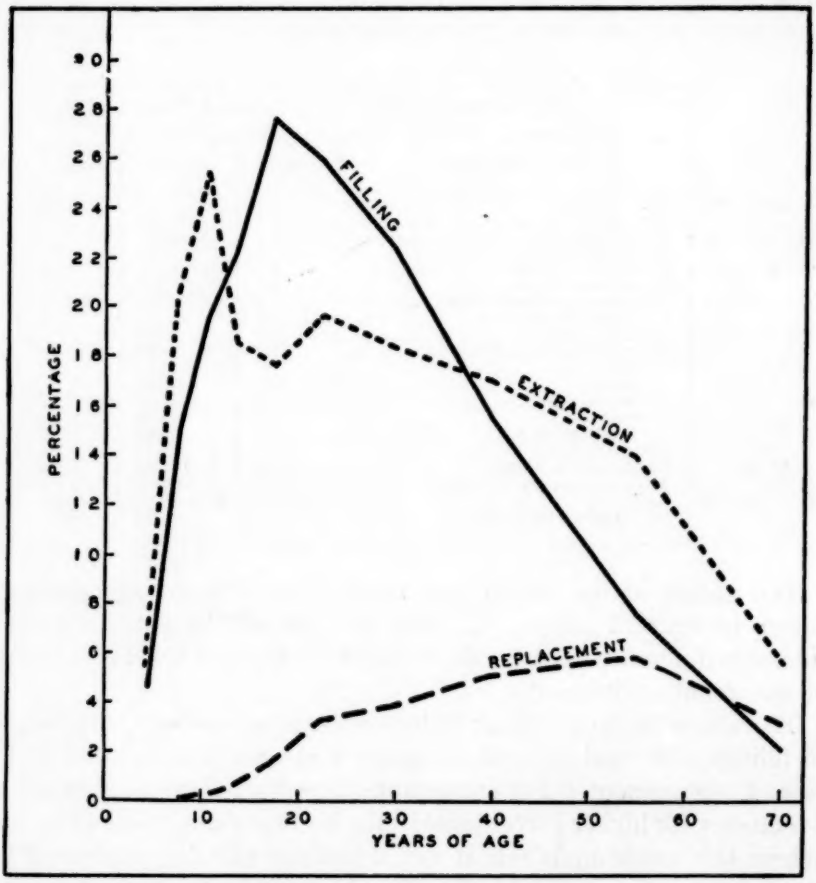

FIGURE 3.—Percentage of white persons of specific ages who were reported to have received dental care of certain kinds during the study year.

of the population (70,554 persons 3 years of age and over being surveyed). Information was secured by house-to-house canvass as to when the person had last seen a dentist and the type of treatment received in the year before the date of the canvass. Visits for cleaning of teeth only were excluded. The items were related to the age and sex of the persons, and the color and socio-economic class of the household head. The following facts stood out (they are based on white persons 3 years of age and over except where otherwise specified):

1. Thirty-three percent (22 percent if visits for extractions only are excluded) were reported to have seen the dentist in the year before the date of the canvass.

2. The differences with age were marked, varying from 7 percent (excluding visits for extraction only) in the age group 3 to 5 years, to 31 percent in the age group 15 to 19 years, and down to 6 percent in the age group 65 years and over.

3. The proportion who had never seen a dentist varied from 85 percent in the age group 3 to 5 years to 8 percent in the age group 25 to 34 years, being 19 percent for the whole group.

4. The percentage of persons reported as having seen a dentist in the year before the date of the canvass (exclusive of visits for extractions only) varied greatly with socio-economic class of the household head—from 42 percent for professional to 16 percent for unskilled workers. For colored persons the figure was 8 percent.

5. The dental care received during the year before the date of the canvass was largely for extraction and/or filling, with characteristic differences by age.

6. Extractions showed slightly higher percentages in the lower socio-economic groups. All other types of treatment showed the reverse, especially fillings (about three times as much in professional as in unskilled). An even greater difference showed up in comparing persons in white professional families with the colored population.

Appendix

TABLE A.—*Percentage of white persons reported to have received dental care (exclusive of extractions only) during the study year, by age*

Age group	Percent	Persons receiving care	Population surveyed
Total [1]	22.3	14,808	66,463
3–5	7.1	260	3,663
6–8	19.7	742	3,772
9–11	24.6	966	3,925
12–14	26.6	1,087	4,089
15–19	31.5	1,976	6,278
20–24	30.7	1,832	5,974
25–34	28.2	3,309	11,934
35–44	21.6	2,685	12,439
45–64	14.4	1,699	11,775
65+	6.2	146	2,370

[1] 3 years and older; includes unknown age.

TABLE B.—*Percentage of white persons (3 years and older), by time since last reported visit to the dentist*

Time since last visit to dentist	Percent		Number
	Simple	Cumulative	
Less than 1 year	32.8	32.8	21,784
Excluding extractions only	(22.3)		(14,808)
1 year	11.1	43.9	7,394
2 years	12.0	55.9	7,993
3 years	5.6	61.5	3,694
4 years	3.2	64.7	2,122
5 years	3.9	68.6	2,616
6 years	1.9	70.5	1,268
7–9 years	2.7	73.2	1,819
10 years and over	6.2	79.4	4,107
Never been to dentist	18.5		12,280
Total persons surveyed [1]			66,463

[1] Includes unknown as to whether a dentist was ever seen and unknown time since last visit to dentist.

TABLE C.—*Percentage of white persons reported to have received dental care (exclusive of extractions only) during the study year, by socio-economic class of household head and by age*

Socio-economic class of household head	Total	Age group									
		3–5	6–8	9–11	12–14	15–19	20–24	25–34	35–44	45–64	65+
Ratio to professional:											
Professional persons	100	100	[1] 100	[1] 100	[1] 100	[1] 100	[1] 100	[1] 100	100	100	100
Dealers and clerks	72	69	61	68	74	81	78	77	71	64	67
Skilled workmen and foremen	49	40	42	50	52	60	59	53	47	35	32
Semi- and unskilled workers and servants	40	22	28	34	39	52	52	46	34	30	40
Percent:											
Professional persons	42.5	17.2	51.4	51.1	48.2	55.9	45.9	53.0	42.9	33.7	13.0
Dealers and clerks	30.4	11.9	28.2	34.4	37.7	41.3	39.3	37.1	30.5	21.5	8.7
Skilled workmen and foremen	20.8	6.8	19.4	25.2	26.7	30.5	30.0	25.4	20.0	11.9	4.2
Semi- and unskilled workers and servants	17.0	3.8	12.8	17.4	19.9	26.4	26.3	22.1	14.6	10.0	5.2
Persons receiving care:											
Professional persons	1,158	27	72	71	65	100	94	287	258	167	16
Dealers and clerks	4,805	105	241	292	323	528	498	1,155	959	636	48
Skilled workmen and foremen	3,676	64	210	288	314	539	419	718	714	377	23
Semi- and unskilled workers and servants	5,042	63	214	308	375	785	799	1,185	735	508	57
Population surveyed:											
Professional persons	2,726	157	140	139	135	179	205	541	602	495	123
Dealers and clerks	15,826	880	855	850	858	1,278	1,267	3,112	3,145	2,956	554
Skilled workmen and foremen	17,698	944	1,081	1,143	1,177	1,770	1,396	2,825	3,569	3,163	553
Semi- and unskilled workers and servants	29,649	1,665	1,672	1,768	1,887	2,974	3,041	5,364	5,037	5,062	1,099

[1] Ratios based on smoothed values for the percentage of professional persons receiving care.

TABLE D.—*Percentage of white persons reported to have received dental care (exclusive of extractions only) during study year, by sex, in two broad age groups*

	Total [1]	3 to 19 years	20 years and older
Percentage:			
Male	20.0	21.3	19.5
Female	24.7	25.2	24.4
Persons receiving care:			
Male	6,707	2,304	4,398
Female	7,949	2,681	5,260
Population surveyed:			
Male	33,474	10,843	22,577
Female	32,254	10,665	21,550

[1] 3 years and older; includes unknown age.

TABLE E.—*Percentage of white persons reported to have received dental care during the study year, by type of treatment and by age*

Age group (years)	Any care [1]	Extractions only	Extractions, total	Filling	Replacement	Treatment gums	Other and unknown	Persons
	Percent							
3–5	7.1	4.6	5.4	4.6	----------	0.8	1.7	----------
6–8	19.7	16.4	20.5	15.1	----------	1.0	3.8	----------
9–11	24.6	18.2	25.5	19.7	0.3	1.4	3.9	----------
12–14	26.6	12.2	18.5	22.2	.5	1.2	3.5	----------
15–19	31.5	9.4	17.6	27.7	1.5	1.6	2.5	----------
20–24	30.7	10.3	19.6	25.9	3.2	2.1	2.4	----------
25–34	28.2	10.6	18.3	22.3	3.9	2.1	2.8	----------
35–44	21.6	10.8	17.0	15.3	5.0	1.8	2.1	----------
45–64	14.4	8.8	13.9	7.5	5.7	1.5	1.5	----------
65+	6.2	4.0	5.5	2.0	3.0	.6	.9	----------
	Number							
3–5	260	170	197	170	----------	28	64	3,663
6–8	742	618	773	569	----------	39	144	3,772
9–11	966	714	1,000	772	11	56	153	3,925
12–14	1,087	498	758	907	19	50	143	4,089
15–19	1,976	593	1,105	1,739	95	103	160	6,278
20–24	1,832	617	1,172	1,547	194	123	142	5,974
25–34	3,369	1,268	2,180	2,666	463	256	334	11,934
35–44	2,685	1,346	2,119	1,907	623	228	258	12,439
45–64	1,699	1,038	1,633	883	669	181	173	11,775
65+	146	94	130	48	72	15	22	2,370

[1] Excluding extractions only.

TABLE F.—*Percentage of white persons reported to have received dental care during the study year, by type of treatment and by socio-economic class of household head, in 4 age groups (6 to 64 years)*

Age group and socio-economic class of household head	Ratio to professional				Percentage				Number				Population surveyed
	Extraction only	Filling	Replacement	Treatment, gums	Extraction only	Filling	Replacement	Treatment, gums	Extraction only	Filling	Replacement	Treatment, gums	
6 to 14 years													
Professional persons	100	100	100	100	12.6	38.6	0.48	4.11	52	160	2	17	414
Dealers, etc	129	65	19	23	16.3	25.2	.09	.94	191	295	1	11	1,169
Clerks, etc	107	75	46	26	13.5	29.1	.22	1.08	188	405	3	15	1,394
Skilled workmen	125	51	73	36	15.7	19.5	.35	1.50	534	662	12	51	3,401
Semiskilled workers	131	37	58	18	16.5	14.2	.28	.76	586	504	10	27	3,549
Unskilled workers	117	30	94	20	14.7	11.6	.45	.84	226	179	7	13	1,542
Servants	128	28	88	21	16.1	11.0	.42	.85	38	26	1	2	236
15 to 24 years													
Professional persons	100	100	100	100	7.0	42.2	2.86	3.39	27	162	11	13	384
Dealers, etc	120	86	95	71	8.4	36.2	2.72	2.40	105	452	34	30	1,248
Clerks, etc	140	81	73	55	9.8	34.2	2.08	1.85	127	444	27	24	1,297
Skilled workmen	137	62	76	52	9.6	26.3	2.18	1.77	304	834	69	56	3,166
Semiskilled workers	160	54	91	53	11.2	22.6	2.59	1.80	412	828	95	66	3,666
Unskilled workers	134	50	72	39	9.4	21.3	2.06	1.31	186	424	41	26	1,987
Servants	130	66	87	65	9.1	27.9	2.49	2.21	33	101	9	8	362
25 to 44 years													
Professional persons	100	100	100	100	8.0	37.7	6.1	3.50	92	431	70	40	1,143
Dealers, etc	119	65	96	69	9.5	24.4	5.9	2.42	238	614	148	61	2,518
Clerks, etc	118	71	85	79	9.4	26.9	5.2	2.75	352	1,006	195	103	3,739
Skilled workmen	141	45	72	50	11.3	16.8	4.43	1.75	724	1,073	283	112	6,394
Semiskilled workers	150	35	58	43	12.0	13.3	3.55	1.52	888	983	262	112	7,373
Unskilled workers	121	37	61	49	9.7	14.0	3.76	1.70	240	346	93	42	2,476
Servants	139	38	77	47	11.1	14.5	4.71	1.63	61	80	26	9	552
45 to 64 years													
Professional persons	100	100	100	100	8.1	18.6	10.1	3.64	40	92	50	18	495
Dealers, etc	111	61	76	53	9.0	11.3	7.7	1.93	130	164	112	28	1,450
Clerks, etc	104	71	68	53	8.4	13.1	6.8	1.93	127	198	103	29	1,506
Skilled workmen	114	32	51	34	9.2	6.0	5.2	1.23	291	191	166	39	3,163
Semiskilled workers	116	26	45	32	9.4	4.79	4.55	1.15	270	137	130	33	2,859
Unskilled workers	94	22	44	35	7.6	4.15	4.48	1.29	136	74	80	23	1,785
Servants	115	26	57	66	9.3	4.78	5.7	2.39	39	20	24	10	418

TABLE G.—*Percentage of persons reported to have received dental care during the study year, by type of treatment and by color, in 2 broad age groups*

	Type of treatment						
	Extractions, total	Extractions only	Filling	Replacement	Treatment, gums	Other and unknown	Total number of persons
Total:[1]							
Percent:							
White:							
Professional	15.7	8.2	31.9	5.1	3.67	4.37	----------
Total	16.7	10.5	16.9	3.25	1.63	2.13	----------
Colored	13.0	11.0	3.91	1.56	1.12	1.46	----------
Number receiving care:							
White:							
Professional	428	224	869	140	100	119	2,726
Total	11,103	6,976	11,242	2,163	1,081	1,416	66,463
Colored	533	448	160	64	46	60	4,091
3-19 years:							
Percent:							
White:							
Professional	14.9	8.5	35.1	0.53	4.53	4.40	----------
Total	17.6	11.9	19.1	0.63	1.27	2.55	----------
Colored	8.0	7.0	4.32	0.08	1.14	2.66	----------
Number receiving care:							
White:							
Professional	112	64	263	4	34	33	750
Total	3,833	2,593	4,157	136	276	554	21,727
Colored	106	92	57	1	15	35	1,319
20 years and older:							
Percent:							
White:							
Professional	16.0	8.0	30.8	6.9	3.36	4.37	----------
Total	16.3	9.8	15.8	4.54	1.80	1.92	----------
Colored	15.5	12.9	3.73	2.30	1.13	.88	----------
Number receiving care:							
White:							
Professional	314	158	605	136	66	86	1,966
Total	7,234	4,363	7,051	2,021	863	853	44,492
Colored	424	353	102	63	31	24	2,738

[1] 3 years and older.

DEATHS DURING WEEK ENDED MARCH 5, 1938

[From the Weekly Health Index, issued by the Bureau of the Census, Department of Commerce]

	Week ended Mar. 5, 1938	Corresponding week, 1937
Data from 86 large cities of the United States:		
Total deaths	8,753	9,612
Average for 3 prior years	9,998	----------
Total deaths, first 9 weeks of year	80,488	95,158
Deaths under 1 year of age	534	620
Average for 3 prior years	639	----------
Deaths under 1 year of age, first 9 weeks of year	4,835	5,801
Data from industrial insurance companies:		
Policies in force	69,774,021	69,355,137
Number of death claims	14,031	16,894
Death claims per 1,000 policies in force, annual rate	10.5	12.7
Death claims per 1,000 policies, first 9 weeks of year, annual rate	10.1	11.6

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers.

In these and the following tables a zero (0) is to be interpreted to mean that no cases or deaths occurred, while leaders (----) indicate that cases or deaths may have occurred although none were reported.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended March 12, 1938 and March 13, 1937

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937
New England States:								
Maine	7	0	8	116	147	15	0	0
New Hampshire	0	0	----	----	26	11	0	0
Vermont	0	0	----	----	259	1	0	0
Massachusetts	6	0	----	----	260	810	1	5
Rhode Island	1	1	----	----	2	253	1	1
Connecticut	7	2	9	42	20	625	0	0
Middle Atlantic States:								
New York	33	44	[1] 10	[1] 47	1,881	577	11	11
New Jersey	21	10	28	39	1,186	2,015	3	1
Pennsylvania	46	47	----	----	7,982	299	5	6
East North Central States:								
Ohio	21	17	----	147	2,984	137	4	14
Indiana	33	15	17	91	906	10	0	4
Illinois	37	36	19	75	6,451	49	4	5
Michigan [2]	12	14	1	3	4,449	64	1	2
Wisconsin	4	3	53	91	4,970	22	0	2
West North Central States:								
Minnesota	0	16	6	2	68	38	0	1
Iowa	4	4	17	4	163	4	2	1
Missouri	26	18	109	195	986	13	3	3
North Dakota	4	4	2	4	9	3	0	0
South Dakota	0	2	1	----	----	4	0	0
Nebraska	4	3	21	23	12	8	4	1
Kansas	4	13	3	43	417	10	0	2
South Atlantic States:								
Delaware	0	0	----	1	28	99	0	1
Maryland [3]	5	7	21	64	85	659	1	5
District of Columbia	9	7	----	14	12	106	0	3
Virginia	10	12	----	----	401	241	2	11
West Virginia	8	6	35	353	357	7	5	6
North Carolina	22	18	7	278	2,994	120	1	7
South Carolina	4	7	338	1,602	454	44	2	2
Georgia [3]	9	13	----	1,125	420	----	1	2
Florida	14	7	2	20	1,313	3	0	3
East South Central States:								
Kentucky	8	14	24	179	576	81	6	23
Tennessee	11	3	59	452	513	8	3	4
Alabama	11	9	214	2,019	1,108	33	8	20
Mississippi [3]	5	0	----	----	----	----	1	5

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended March 12, 1938 and March 13, 1937—Continued

Division and State	Diphtheria		Influenza		Measles		Meningococcus meningitis	
	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937	Week ended Mar. 12, 1938	Week ended Mar. 13, 1937
West South Central States:								
Arkansas	11	2	174	260	501	----	1	20
Louisiana	9	10	8	366	11	7	4	1
Oklahoma [4]	15	5	133	337	83	25	1	10
Texas [3]	44	54	726	2,099	309	420	5	10
Mountain States:								
Montana	2	2	----	27	80	46	0	0
Idaho	1	1	17	5	1	29	0	0
Wyoming	0	0	----	----	32	4	1	0
Colorado	15	2	----	----	570	6	0	2
New Mexico	2	3	4	81	89	100	0	0
Arizona	0	2	99	73	42	181	0	0
Utah [3]	0	0	----	----	273	23	0	0
Pacific States:								
Washington	0	3	2	2	8	29	1	2
Oregon	0	0	57	34	16	7	0	1
California	39	14	54	818	348	96	3	11
Total	524	450	2,278	11,131	43,802	7,342	85	210
First 10 weeks of year	6,327	5,506	29,694	235,680	206,689	52,676	943	1,628

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers		Whooping cough
	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938
New England States:									
Maine	0	0	17	17	0	0	0	0	54
New Hampshire	0	0	18	19	0	0	0	1	7
Vermont	2	0	19	6	0	0	0	0	19
Massachusetts	0	0	407	256	0	0	0	2	120
Rhode Island	0	0	24	54	0	0	0	0	29
Connecticut	0	0	107	112	0	0	0	1	76
Middle Atlantic States:									
New York	2	0	937	1,020	0	0	4	6	451
New Jersey	1	0	148	232	0	0	3	2	219
Pennsylvania	0	0	759	749	0	0	7	6	309
East North Central States:									
Ohio	0	0	471	370	10	2	6	8	188
Indiana	0	0	155	238	28	0	0	0	23
Illinois	2	2	714	888	45	24	5	6	122
Michigan [3]	0	0	794	1,004	6	1	12	2	254
Wisconsin	0	0	182	379	3	14	0	2	108
West North Central States:									
Minnesota	0	0	153	161	10	7	0	1	18
Iowa	0	1	286	370	42	38	1	1	25
Missouri	0	0	230	269	50	70	3	6	60
North Dakota	0	0	14	53	9	3	0	0	20
South Dakota	0	0	45	87	12	2	0	0	34
Nebraska	0	0	69	57	10	9	0	0	9
Kansas	0	0	207	492	20	32	6	2	116
South Atlantic States:									
Delaware	0	0	13	10	0	0	0	0	1
Maryland [3]	0	0	74	31	0	0	0	2	45
District of Columbia	0	0	24	9	0	0	0	0	5
Virginia	0	0	36	31	0	0	2	3	122
West Virginia	0	0	64	42	0	0	3	3	54
North Carolina	4	1	27	28	1	0	3	0	412
South Carolina	0	0	3	11	0	0	0	3	56
Georgia [3]	3	0	8	22	2	0	0	3	56
Florida	0	0	9	8	0	0	3	5	10

See footnotes at end of table.

Cases of certain communicable diseases reported by telegraph by State health officers for weeks ended March 12, 1938 and March 13, 1937—Continued

Division and State	Poliomyelitis		Scarlet fever		Smallpox		Typhoid and paratyphoid fevers		Whooping cough
	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938	Week ended Mar. 13 1937	Week ended Mar. 12 1938
East South Central States:									
Kentucky	2	1	114	46	7	0	0	5	50
Tennessee	0	0	28	18	14	0	2	3	28
Alabama	1	2	17	17	0	0	3	3	32
Mississippi [2]	1	5	1	13	1	0	1	0	----
West South Central States:									
Arkansas	0	1	5	12	9	5	6	2	34
Louisiana	1	0	19	9	2	0	21	13	18
Oklahoma [4]	0	0	35	34	16	3	1	4	43
Texas [3]	2	2	139	112	28	1	10	9	355
Mountain States:									
Montana	0	0	46	36	7	18	0	0	16
Idaho	1	0	16	19	10	1	2	0	13
Wyoming	0	0	14	19	0	2	0	0	45
Colorado	0	0	45	42	3	0	0	0	9
New Mexico	0	0	16	30	1	0	0	0	81
Arizona	0	0	9	4	2	0	0	0	42
Utah [2]	0	0	57	16	1	0	0	0	30
Pacific States:									
Washington	0	0	55	29	81	6	2	5	179
Oregon	1	0	35	24	46	36	2	3	16
California	1	1	235	234	24	11	4	4	529
Total	24	16	6,900	7,739	500	285	106	116	4,542
First 10 weeks of year	216	211	61,200	65,463	5,684	2,942	1,173	1,101	40,631

[1] New York City only.
[2] Period ended earlier than Saturday.
[3] Typhus fever, week ended Mar. 12, 1938, 10 cases as follows: Georgia, 5; Texas, 5.
[4] Figures for 1937 are exclusive of Oklahoma City and Tulsa.

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of cases reported monthly by States is published weekly and covers only those States from which reports are received during the current week.

State	Meningococcus meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Poliomyelitis	Scarlet fever	Smallpox	Typhoid fever
February 1938										
California	11	134	404	1	1,174	5	11	870	164	26
District of Columbia	2	59	3	----	34	1	1	76	0	2
Florida	7	55	20	37	1,663	3	3	55	1	8
Iowa	7	22	49	----	264	----	0	998	171	5
Maine	1	3	33	----	431	----	1	62	0	3
Nebraska	2	41	23	----	66	----	1	274	37	1
New Jersey	8	85	72	----	5,372	----	1	509	0	4
Vermont	0	2	4	----	858	----	0	68	0	2
West Virginia	19	34	247	----	1,684	----	3	229	0	24
Wyoming	1	4	1	----	25	----	0	64	10	0

Summary of monthly reports from States—Continued

February 1938

	Cases
Chickenpox:	
California	3,104
District of Columbia	289
Florida	187
Iowa	352
Maine	240
Nebraska	215
New Jersey	3,228
Vermont	199
West Virginia	252
Wyoming	87
Dysentery:	
California (amoebic)	6
California (bacillary)	13
District of Columbia (amoebic)	1
Florida (amoebic)	1
Maine (bacillary)	3
New Jersey (amoebic)	1
Encephalitis, epidemic or lethargic:	
California	2
Florida	1
Food poisoning:	
California	73
German measles:	
California	74
Florida	3
Iowa	8
Maine	21
New Jersey	68
Vermont	13
Granuloma, coccidioidal:	
California	5

February 1938—Continued

	Cases
Hookworm disease:	
Florida	780
Jaundice, epidemic:	
California	10
Leprosy:	
California	2
Mumps:	
California	1,666
Florida	68
Iowa	56
Maine	74
Nebraska	115
New Jersey	896
Vermont	530
West Virginia	28
Wyoming	48
Ophthalmia neonatorum:	
Florida	1
New Jersey	17
Paratyphoid fever:	
California	2
Florida	2
New Jersey	1
Rabies in animals:	
California	149
Florida	2
New Jersey	5
West Virginia	6
Septic sore throat:	
California	8
Iowa	9
Maine	1
New Jersey	17
West Virginia	1
Wyoming	1

February 1938—Continued

	Cases
Tetanus:	
California	1
Florida	1
Trachoma:	
California	24
Trichinosis:	
California	5
Florida	1
New Jersey	1
Tularaemia:	
Iowa	1
New Jersey	1
Typhus fever:	
Florida	10
Undulant fever:	
California	10
Florida	2
Iowa	10
New Jersey	6
Vermont	4
Vincent's infection:	
Florida	68
Maine	5
Whooping cough:	
California	1,423
District of Columbia	37
Florida	84
Iowa	117
Maine	219
Nebraska	39
New Jersey	703
Vermont	109
West Virginia	279
Wyoming	65

PLAGUE INFECTION IN SANTA CRUZ COUNTY, CALIF., AND ADAMS COUNTY, WASH.

Under date of March 10, 1938, Dr. W. M. Dickie, Director of Public Health of California, reported that plague infection had been proved, by culture and animal inoculation, in 41 fleas taken on February 3 from 2 *beecheyi* squirrels from a ranch 4 miles northeast of Watsonville, Santa Cruz County, Calif.

Under date of March 15, 1938, Senior Surgeon E. R. Eskey, in charge of plague suppressive measures at San Francisco, Calif., reported that plague infection had been proved, by culture and animal inoculation, in tissue from 1 *Citellus townsendi* squirrel shot March 7, 1938, 2 miles east of Lind, Adams County, Wash.

CASES OF VENEREAL DISEASES REPORTED FOR JANUARY 1938

These reports are published monthly for the information of health officers in order to furnish current data as to the prevalence of the venereal diseases. The figures are taken from reports received from State and city health officers. They are preliminary and are therefore subject to correction. It is hoped that the publication of these reports will stimulate more complete reporting of these diseases.

Reports from States

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Alabama [1]				
Arizona [1]				
Arkansas	728	3.55	256	1.25
California	1,557	2.53	1,341	2.18
Colorado	26	.24	16	.15
Connecticut	217	1.25	105	.60
Delaware	240	9.20	71	2.72
District of Columbia	190	3.03	141	2.25
Florida [1]				
Georgia	1,688	5.47	293	.95
Idaho	51	1.03	33	.67
Illinois	1,929	2.45	1,008	1.28
Indiana	349	1.00	79	.23
Iowa	301	1.18	162	.63
Kansas	180	.97	50	.27
Kentucky	716	2.45	315	1.08
Louisiana	568	2.67	102	.48
Maine	50	.59	59	.69
Maryland	979	5.83	259	1.54
Massachusetts	433	.98	376	.85
Michigan	926	1.92	660	1.37
Minnesota	255	.96	192	.72
Mississippi	2,085	10.31	2,377	11.75
Missouri	416	1.04	91	.23
Montana [2]	63	1.17	42	.78
Nebraska	104	.76	115	.84
Nevada [3]				
New Hampshire	24	.47	9	.18
New Jersey	820	1.89	232	.58
New Mexico	119	2.82	57	1.35
New York	4,060	3.13	2,011	1.55
North Carolina	3,240	9.23	574	1.64
North Dakota	48	.68	32	.45
Ohio	1,683	2.50	445	.66
Oklahoma [3]	490	1.92	398	1.56
Oregon	139	1.35	166	1.62
Pennsylvania	1,887	1.85	250	.25
Rhode Island	101	1.48	54	.79
South Carolina [3]	370	1.92	371	1.98
South Dakota	38	.55	18	.26
Tennessee	919	3.18	419	1.45
Texas	1,390	2.25	380	.62
Utah	29	.56	56	1.08
Vermont	22	.57	18	.47
Virginia	936	3.46	291	1.08
Washington	318	1.92	373	2.25
West Virginia [3]	371	1.99	167	.90
Wisconsin [4]	43	.15	119	.41
Wyoming [5]	7	.30	2	.09
Total	31,095	2.50	14,585	1.17

See footnotes at end of table.

Reports from cities of 200,000 population or over

	Syphilis		Gonorrhea	
	Cases reported during month	Monthly case rates per 10,000 population	Cases reported during month	Monthly case rates per 10,000 population
Akron, Ohio [1]				
Atlanta, Ga	325	11.32	135	4.70
Baltimore, Md	679	7.02	163	1.98
Birmingham, Ala	316	11.19	80	2.83
Boston, Mass	193	2.44	142	1.80
Buffalo, N. Y	135	2.28	70	1.18
Chicago, Ill	1,112	3.12	658	1.84
Cincinnati, Ohio [1]				
Cleveland, Ohio [1]				
Columbus, Ohio	59	1.93	7	.23
Dallas, Tex	335	11.57	68	2.35
Dayton, Ohio	64	3.04	20	.95
Denver, Colo	33	1.11	19	.64
Detroit, Mich	409	2.36	325	1.88
Houston, Tex. [6]	193	5.76	56	1.67
Indianapolis, Ind	27	.72	35	.93
Jersey City, N. J	10	.31	1	.03
Kansas City, Mo	33	.78	2	.05
Los Angeles, Calif	537	3.75	353	2.47
Louisville, Ky	352	10.86	113	3.49
Memphis, Tenn	343	12.85	98	3.67
Milwaukee, Wis. [3]				
Minneapolis, Minn	73	1.50	79	1.62
Newark, N. J. [1]				
New Orleans, La. [1]				
New York, N. Y	2,545	3.48	1,547	2.12
Oakland, Calif. [1]				
Omaha, Nebr	42	1.91	42	1.91
Philadelphia, Pa	582	2.93		
Pittsburgh, Pa	251	3.67	20	.29
Portland, Oreg	9	.29	65	2.07
Providence, R. I	65	2.51	33	1.27
Rochester, N. Y	34	1.01	38	1.13
St. Louis, Mo	238	2.85	115	1.38
St. Paul, Minn	16	.57	14	.50
San Antonio, Tex. [3]				
San Francisco, Calif	167	2.49	226	3.37
Seattle, Wash	116	3.06	133	3.50
Syracuse, N. Y	71	3.26	39	1.79
Toledo, Ohio	178	5.85	79	2.60
Washington, D. C. [7]	190	3.03	141	2.25

[1] No report for current month.
[2] Incomplete.
[3] No report during present fiscal year.
[4] Only cases of syphilis in the infectious stage are reported.
[5] From report submitted to medical director of epidemiological studies.
[6] Reported by Jefferson Davis Hospital.
[7] Reported by social hygiene clinic.

WEEKLY REPORTS FROM CITIES

City reports for week ended March 5, 1938

This table summarizes the reports received weekly from a selected list of 140 cities for the purpose of showing a cross section of the current urban incidence of the communicable diseases listed in the table.

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Data for 90 cities:											
5-year average	200	823	140	5,748	999	2,475	24	418	19	1,285	----
Current week [1]	155	188	53	15,167	688	1,851	39	385	29	1,042	----
Maine:											
Portland	0	----	0	6	4	1	0	0	0	28	26
New Hampshire:											
Concord	0	----	0	2	0	1	0	0	0	5	6
Manchester	0	----	0	1	2	0	0	1	0	0	24
Nashua	0	----	0	0	0	0	0	0	0	11	7
Vermont:											
Barre	0	----	0	18	0	0	0	0	0	0	2
Burlington	0	----	0	4	0	0	0	0	0	2	8
Rutland	0	----	0	0	2	0	0	0	0	0	7
Massachusetts:											
Boston	1	----	1	191	30	89	0	3	0	18	208
Fall River	0	----	0	1	2	3	0	2	0	4	39
Springfield	0	----	0	0	3	5	0	0	0	7	37
Worcester	0	----	0	0	12	28	0	2	0	6	----
Rhode Island:											
Pawtucket	1	----	0	0	1	3	0	0	0	0	16
Providence	0	----	0	1	6	10	0	0	0	12	59
Connecticut:											
Bridgeport	0	----	0	0	4	18	0	1	0	0	37
Hartford	0	----	0	0	2	27	0	0	0	3	44
New Haven	1	----	0	0	4	0	0	1	0	8	32
New York:											
Buffalo	0	----	0	3	11	40	0	5	0	8	165
New York	39	18	6	931	143	378	0	108	2	210	1,615
Rochester	0	1	0	4	8	10	0	2	0	1	72
Syracuse	0	----	0	33	5	12	0	0	0	6	47
New Jersey:											
Camden	2	----	1	30	5	10	0	1	0	1	34
Newark	0	2	1	15	7	18	0	15	1	27	120
Trenton	0	----	1	4	10	2	0	0	0	0	42
Pennsylvania:											
Philadelphia	6	----	2	847	35	115	0	34	1	39	552
Pittsburgh	3	4	3	321	14	48	0	7	1	19	182
Reading	0	----	0	7	1	6	0	3	0	1	29
Scranton	1	----	----	51	----	7	0	----	0	1	----
Ohio:											
Cincinnati	1	----	0	2	14	12	0	8	0	1	127
Cleveland	4	16	0	264	15	69	1	9	0	41	191
Columbus	1	----	0	296	10	5	0	3	0	1	78
Toledo	0	----	0	150	4	8	0	4	0	5	75
Indiana:											
Anderson	0	----	0	14	0	3	3	1	0	1	14
Fort Wayne	0	----	0	37	3	14	0	1	0	0	30
Indianapolis	5	----	1	262	8	21	1	3	0	3	91
South Bend	0	----	0	8	2	1	0	0	0	1	18
Terre Haute	3	----	0	16	0	4	0	0	1	0	24
Illinois:											
Alton	0	----	0	0	3	8	0	0	0	0	11
Chicago	14	10	5	3,474	42	270	1	36	2	35	719
Elgin	0	----	0	6	0	12	0	0	0	2	11
Moline	0	----	0	64	0	15	0	0	0	2	12
Springfield	0	----	0	155	3	3	1	0	0	0	20
Michigan:											
Detroit	6	1	0	2,752	15	159	0	12	0	82	192
Flint	0	----	0	5	3	44	0	1	0	10	27
Grand Rapids	0	----	0	23	2	13	0	0	0	3	31
Wisconsin:											
Kenosha	0	----	0	12	0	2	0	2	0	2	11
Madison	0	----	0	20	2	3	0	0	0	1	16
Milwaukee	1	----	0	3,131	10	16	0	6	0	32	100
Racine	----	----	----	----	----	----	----	----	----	----	----
Superior	0	----	0	11	0	0	1	0	0	1	5
Minnesota:											
Duluth	0	----	1	1	2	5	0	2	0	6	20
Minneapolis	2	----	1	17	2	21	5	5	0	9	101
St. Paul	0	----	0	1	6	5	11	2	0	4	65

[1] Figures for Racine, St. Joseph, and Wilmington, N. C., estimated; reports not received.

City reports for week ended March 5, 1938—Continued

State and city	Diphtheria cases	Influenza		Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
		Cases	Deaths								
Iowa:											
Cedar Rapids	0	------	--------	1	-------	3	0	-------	0	1	--------
Davenport	0	------	--------	13	-------	1	0	-------	0	0	--------
Des Moines	0	------	--------	0	-------	23	0	-------	0	0	38
Sioux City	0	------	--------	0	-------	11	0	-------	0	1	--------
Waterloo	2	------	--------	79	-------	19	0	-------	0	0	--------
Missouri:											
Kansas City	0	2	0	212	13	15	0	3	0	4	105
St. Joseph	-------	------	--------	-------	-------	-------	-------	-------	-------	-------	--------
St. Louis	7	------	1	26	6	86	2	3	1	2	191
North Dakota:											
Fargo	0	------	0	0	3	2	0	0	0	4	11
Grand Forks	0	------	--------	0	-------	1	1	-------	0	0	--------
Minot	0	------	0	0	0	0	3	0	0	2	4
South Dakota:											
Aberdeen	0	------	--------	0	-------	2	0	-------	0	2	--------
Sioux Falls	0	------	--------	0	-------	0	0	-------	0	0	8
Nebraska:											
Lincoln	0	------	--------	1	-------	12	0	-------	0	0	--------
Omaha	5	------	0	6	7	5	0	1	0	0	50
Kansas:											
Lawrence	0	------	0	0	0	1	0	0	0	2	3
Topeka	0	------	0	27	3	2	0	0	0	18	25
Wichita	0	------	0	2	3	0	0	1	0	2	24
Delaware:											
Wilmington	1	------	0	4	4	4	0	2	0	0	36
Maryland:											
Baltimore	3	10	3	5	24	36	0	8	1	49	218
Cumberland	0	------	0	0	3	4	0	0	0	0	15
Frederick	0	------	0	0	0	0	0	0	0	0	6
District of Columbia:											
Washington	7	1	1	5	18	25	0	8	0	9	154
Virginia:											
Lynchburg	0	------	1	2	1	0	0	0	0	4	17
Norfolk	0	------	0	18	4	11	0	1	0	1	24
Richmond	1	------	0	26	5	5	0	0	0	0	69
Roanoke	1	------	0	1	2	0	0	1	0	1	13
West Virginia:											
Charleston	0	------	0	113	2	0	0	1	0	0	14
Huntington	0	------	--------	5	-------	0	0	-------	0	0	--------
Wheeling	0	------	0	64	3	7	0	1	0	1	31
North Carolina:											
Gastonia	0	------	--------	14	-------	0	0	-------	0	8	--------
Raleigh	0	------	0	46	0	0	0	0	0	11	2
Wilmington	-------	------	--------	-------	-------	-------	-------	-------	-------	-------	--------
Winston-Salem	1	------	0	9	3	2	0	0	0	59	17
South Carolina:											
Charleston	1	26	1	83	4	0	0	0	0	1	25
Columbia	-------	------	--------	-------	-------	-------	-------	-------	-------	-------	--------
Florence	0	------	0	9	1	0	0	1	0	0	13
Greenville	0	------	0	1	1	0	0	0	0	13	5
Georgia:											
Atlanta	0	16	0	200	6	3	4	4	1	1	90
Brunswick	0	------	0	0	0	0	0	0	0	0	5
Savannah	3	43	0	31	3	0	0	0	0	0	37
Florida:											
Miami	0	1	0	179	2	0	0	1	0	2	46
Tampa	4	1	1	7	2	2	0	0	0	0	29
Kentucky:											
Covington	0	------	0	7	3	2	0	1	0	0	14
Lexington	0	------	0	2	2	1	0	2	0	2	19
Louisville	0	2	0	236	7	24	0	0	0	4	84
Tennessee:											
Knoxville	1	8	3	43	1	2	0	0	0	6	32
Memphis	0	------	2	141	10	3	0	5	0	6	94
Nashville	0	0	4	141	4	0	0	2	0	8	54
Alabama:											
Birmingham	1	8	1	176	3	2	0	3	0	0	73
Mobile	0	------	2	20	5	1	0	1	0	0	33
Montgomery	0	------	--------	71	-------	0	0	-------	0	4	--------
Arkansas:											
Fort Smith	2	------	--------	2	-------	0	0	-------	0	2	--------
Little Rock	0	------	0	80	1	0	0	2	0	1	3

City reports for week ended March 5, 1938—Continued

State and city	Diphtheria cases	Influenza cases	Influenza deaths	Measles cases	Pneumonia deaths	Scarlet fever cases	Smallpox cases	Tuberculosis deaths	Typhoid fever cases	Whooping cough cases	Deaths, all causes
Louisiana:											
Lake Charles	0	------	0	1	1	1	0	0	0	0	3
New Orleans	6	4	3	2	19	6	0	10	17	12	162
Shreveport	1	------	0	0	5	4	0	1	0	0	37
Oklahoma:											
Muskogee	1	------	------	0	------	1	0	------	0	0	------
Oklahoma City	1	------	1	------	6	3	0	1	0	------	44
Tulsa	0	------	------	8	------	0	5	------	1	6	------
Texas:											
Dallas	1	2	2	0	11	14	0	3	0	0	77
Fort Worth	0	------	0	0	0	6	1	1	0	2	44
Galveston	0	------	0	0	2	1	0	2	0	0	21
Houston	5	1	1	0	7	7	0	6	0	0	83
San Antonio	1	------	2	0	9	1	0	6	0	1	75
Montana:											
Billings	1	------	1	0	1	2	0	0	0	2	8
Great Falls	0	------	0	0	2	3	1	0	0	4	10
Helena	0	------	0	0	0	1	0	0	0	2	4
Missoula	0	------	0	0	2	1	0	0	0	0	10
Idaho:											
Boise	0	------	0	0	1	1	2	0	0	0	9
Colorado:											
Colorado Springs	5	------	0	0	1	1	0	3	0	1	8
Denver	6	------	1	536	9	21	1	2	1	3	96
Pueblo	0	------	0	0	1	3	0	3	0	0	13
New Mexico:											
Albuquerque	0	------	0	4	3	4	0	4	0	2	21
Utah:											
Salt Lake City	0	------	0	209	5	13	0	1	0	3	37
Washington:											
Seattle	2	------	------	2	------	5	3	------	0	46	------
Spokane	0	------	0	0	3	2	1	0	0	6	29
Tacoma	0	------	0	0	4	8	2	1	0	5	27
Oregon:											
Portland	0	3	1	1	8	22	2	3	0	2	102
Salem	0	3	------	0	------	0	0	------	0	0	------
California:											
Los Angeles	6	15	2	14	20	33	2	15	0	13	296
Sacramento	0	1	0	0	3	7	0	3	0	74	47
San Francisco	2	4	0	2	8	16	0	11	0	45	170

State and city	Meningococcus meningitis cases	Meningococcus meningitis deaths	Poliomyelitis cases
New York:			
Buffalo	1	1	0
New York	6	1	0
Pennsylvania:			
Pittsburgh	1	0	0
Illinois:			
Chicago	1	0	0
Minnesota:			
Minneapolis	1	0	0
Maryland:			
Baltimore	1	1	0
District of Columbia:			
Washington	2	0	0
West Virginia:			
Wheeling	1	0	0
Georgia:			
Atlanta	1	0	0
Tennessee:			
Memphis	1	0	0
Alabama:			
Birmingham	0	2	0
Louisiana:			
New Orleans	1	;	0
Shreveport	0	1	0
California:			
Los Angeles	2	0	0
Sacramento	1	1	0

Encephalitis, epidemic or lethargic.—Cases: Buffalo, 1; New York, 1.
Pellagra.—Cases: Topeka, 1; Baltimore, 1; Atlanta, 2; Brunswick, 1; Savannah, 6; New Orleans, 1.
Undulant fever.—Cases: Davenport, 1.

FOREIGN AND INSULAR

AUSTRIA

Vital statistics—Year 1936.—The following table shows the births, deaths, and marriages in Austria for the year 1936:

Population	6,760,631	Deaths from—Continued.	
Marriages	45,996	Heart disease	15,009
Births	90,348	Homicide	146
Total deaths	88,902	Influenza	447
Deaths under 1 year of age	8,241	Malaria	3
Deaths from:		Measles	100
Accidents	2,305	Scarlet fever	80
Cancer and other malignant tumors	12,365	Suicide	2,696
Cirrhosis of the liver	595	Syphilis	401
Diabetes	787	Tuberculosis (all forms)	6,776
Diarrhea (under 2 years of age)	816	Typhoid fever and paratyphoid fever	105
Diphtheria	867	Whooping cough	263
Dysentery	12		

CANADA

Provinces—Communicable diseases—2 weeks ended February 12, 1938.—During the 2 weeks ended February 12, 1938, cases of certain communicable diseases were reported by the Department of Pensions and National Health of Canada as follows:

Disease	Prince Edward Island	Nova Scotia[1]	New Brunswick	Quebec	Ontario	Manitoba	Saskatchewan	Alberta	British Columbia	Total
Cerebrospinal meningitis		1	1	3	1					6
Chickenpox		13	2	254	509	99	45	38	191	1,151
Diphtheria		4	9	79	11	5	1	5	1	115
Dysentery					2					2
Erysipelas				14	8	3	3		2	30
Influenza		58			76	3			58	195
Lethargic encephalitis					1					1
Measles		111	67	263	474	139	101	149	330	1,634
Mumps		74			314	121	1	13	31	554
Paratyphoid fever		1						1	1	3
Pneumonia		25			83		1		38	147
Poliomyelitis				1		1	2	1	1	6
Scarlet fever	2	20	8	221	328	62	99	131	98	969
Smallpox							6		1	7
Tuberculosis	2	23	19	111	78	3	52	2	38	328
Typhoid fever		1	6	52	2	1		1	2	65
Undulant fever					3			1		4
Whooping cough				245	155	26		5	98	529

[1] For 2 weeks ended Feb. 16, 1938.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER

From medical officers of the Public Health Service, American consuls, International Office of Public Health, Pan American Sanitary Bureau, health section of the League of Nations, and other sources. The reports contained in the following table must not be considered as complete or final as regards either the list of countries included or the figures for the particular countries for which reports are given.

CHOLERA

[C indicates cases; D, deaths; P, present]

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Oct. 31–Nov. 27, 1937	Week ended— December 1937 4	11	18	25	January 1938 1	8	15	22	29	February 1938 5	12	19	26
China:																		
Canton	C	80	102	14														
Hangchow	C		12	[1] 41														
Hong Kong	C	964	580	84	7					1		1						
	D	497	344	63	7							1						
Kwangchow Wan	C	104		62	12													
	D	81		26	10													
Macao	C	286	190	27	2													
Manchuria:																		
Dairen	C			6														
Kwantung Leased Territory	C		3															
Mukden	C			2														
Nanking	C			120														
	D			14														
Shanghai	C	8	1,804	1,414	237	6	10	3	3	3								
Swatow	C	8	24	44	101	2												
Tientsin	C			8														
Chosen: Fusan	C		1															
Dutch East Indies:																		
Celebes	C		[2] 6															
Macassar	C											1						
India	C	18,259	12,203	11,344	6,802	1,664	1,563	1,245	854	1,807	1,718	1,490						
	D	7,976	5,768	5,787	3,737	835	831	569	409	906	766	769						
Assam	C	35	44	59	87	6	68	40	25	35	45	88	53	41	34	44	36	29
	D	25	16	25	53	1	13	24	18	22	22	40	34	23	15	28	23	14
Bombay Presidency	C	4,273	3,366	1,375	363	49	42	53	47	7	2		1					
	D	1,719	1,571	686	171	28	19	35	35	6	1							
Bombay	C		[3] 1															
Calcutta	C	77	56	83	80	19	23	15	12	6	23	24	36	33	45	60	72	49
Central Provinces and Berar	C	176	286	860	356	36	27	19	31	18	4	6	12		3	14	14	25
Chittagong	C																1	
Delhi	C				1													

Madras Presidency	C	4,210	1,844	826	1,204	374	1,020	402	858	890	910	727						
	D	1,659	771	389	431	135	480	174	389	412	338	352						
Madras	C	64	70	106	233	52	29	30	49	38	32	24	10	16	4	3	4	5
	D	26	18	43	34	12	13	8	7	6	7	3	8	5	2	2		2
Negapatam	C	1	3	1														
	D		1															
Northwest Frontier province	C	203	32	19														
Orissa Province	C	247	111	147	91	20	11	7	1	12	12	12	21	20	3	23	19	
Punjab	C	120	29															
Rangoon	C				1					1				1				
Sind State	C	1	1															
Visagapatam	C																	1
India (French):																		
Chandernagor Territory	C			4	4	1						1	2					
Karikal Province	C		1								1							
Pondichery Province	C		1	1				1			1	1						
Indochina (French): [4]																		
Annam Province	C			37	364	40	18	31	5	5	20	12	7	19	61	151	72	54
Tonkin Province	C		320	4,179	2,342	274	69	82	84	15	26	7	2	9	12	27	2	14
Haiphong	C		56	577	44	1												
	D		30	159	27													
Hanoi	C			284	361	21	8	8	2		3							
Japan: [5]																		
Hiroshima	C		32	5														
Kobe	C			1														
Okayama Prefecture	C			5														
Sasebo [3]																		
Taku	C		1	3														
Tokuyama	C			10														
Tokyo	C			1														
Siam:																		
Bangkok	C	1		2														
Provinces	C	42	16	7											3			

On vessels:

S. S. *Muinam* at Singapore from Hong Kong	2 cases	Aug. 16, 1937
S. S. *Sandviken* at Hong Kong	Present	Aug. 18, 1937
S. S. *Haiching* at Hong Kong	Present	Do.
S. S. *Talma* at Singapore from Hong Kong	1 case	Aug. 20, 1937
S. S. *Cremer* at Singapore from Amoy, Hong Kong, and Swatow	1 case	Aug. 24, 1937

On vessels—Continued.

S. S. *Tyndareus* at Kobe from Hong Kong and Dairen	1 case	Aug. 27, 1937
S. S. *Manila Maru* at Moji from Hong Kong	1 case	Aug. 31, 1937
S. S. *Anking* at Singapore from Hong Kong	1 case	Sept. 10, 1937
S. S. *Sphinx* at Singapore from Hong Kong	1 case	Sept. 15, 1937
S. S. *Kiungchow* at Hong Kong from Shanghai	3 cases	Oct. 3, 1937
S. S. *Ranee* at Calcutta from Port Said and Blyth	1 case	Dec. 13, 1937

[1] For 2 weeks.
[2] El Tor strain.
[3] Imported.
[4] For reports prior to Aug. 1, 1937, see previous issues of PUBLIC HEALTH REPORTS.
[5] A report states that up to Sept. 30, cholera was reported in Japan, as follows: Hiogo Prefecture, 1 case, 1 death; Hiroshima Prefecture, 40 cases, 14 deaths; Yamaguchi Prefecture, 2 cases, 1 death. During the week ended Mar. 12, 1938, 1 case of cholera was reported at the naval shipyard at Sasebo, Japan.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE[1]

[C indicates cases; D, deaths; P, present]

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Oct. 31–Nov. 27, 1937	Week ended— December 1937 4	11	18	25	January 1938 1	8	15	22	29	February 1938 5	12	19	26
Argentina. (See table below.)																		
Belgian Congo	C			[2]2					2									
Bolivia:																		
Oropeza Province	C										2							
Sucre	C										[2]1							
Tarija Department	C										1			50				
Brazil. (See table below.)																		
British East Africa:																		
Kenya	C	16	11	15	10										1			
Tanganyika	C	1																
Uganda	C	32	50	51	67	14	6	10	8	5	6	5	12	11	2	7		
	D	32	48	40	56	12		10	8	5	6	4	12	12	2	7		
Ceylon:																		
Colombo	C	1		1	1		1			1						1		1
	D	1		1	1		1				1					1		1
Plague-infected rats			2	3														
China:[4]																		
Dutch East Indies:																		
Java and Madura	C	215	213	223	311	82	50	49	66	67								
	D	215	212	220	311	82	50	49	66	67								
Pasocrean (vicinity of)	C				5	2				2								
Ecuador:																		
Colimes	C										1							
Guayaquil	C	1		2			1		1		1	1	1	1	2			3
	D	1		2			1					1	1		2			
Plague-infected rats		2	1	2	3	1			1							3		
Parroquia Eloy Alfaro	C				1													
Egypt:																		
Asyut Province	C				1					1								
Beheira Province	C							1										
Gharbiya Province	C												1					
Girga Province	C			1														

Hawaii Territory: [1] Plague-infected rats:																		
Hawaii Island—Hamakua District:																		
Hamakua Mill Sector [5]		8	4	3	4	7			1	1						1		1	
Paauhau Sector [5]		1	1	1	5				2		1	2	3	2		2	1	
Paauilo						2	13	3										
Maui Island:																		
Makawao District—Plague-infected rats						1	3	2										
Omaopio [5]			1															
Wailuku District—Puunene	D										1							
India	C	962	1,697	1,996	1,874	440	400	391	215	185	510	298						
	D	522	747	821	742	215	175	164	104	99	237	187						
Bassein	C	2	2							1				[6] 1	1			1
Bombay Presidency	C	43	62	82	59	15	10	10	16	8			2	14				
	D	25	42	48	36	17	8	4	8	4			2	7				
Central Provinces and Berar	C	85	285	582	592	109	147	80	54	36	91	58	113	188	232	190	156	260
Cochin	C		2		1													
Karachi	C		12															
Madras Presidency	C	203	111	80	175	23	52	16	69	67	65	81						
	D	98	59	41	84	13	28	5	38	38	35	53						
Punjab	C	17																
Rangoon	C	5													1	[6] 1		1
Sind State	C		8															
Indochina (French) (see also table below): Sadec	C		1															
Madagascar. (See table below.)																		
Niger Territory. (See table below.)																		
Peru. (See table below.)																		
Senegal: **Dakar**	C		1															
Tunisia: **Tunis**: Plague-infected rats								1									1	
Union of South Africa	C		[7] 1	[7] 1														
United States: [8]																		
California: [8] [9] [10]																		
Eldorado County—Plague-infected fleas.																		
Fresno County [9]	C		1															
Plague-infected fleas.																		
Plague-infected ground squirrels			3															
Placer County [10]—Plague-infected fleas.																		
San Bernardino County—Plague-infected fleas.																		

[1] Including plague in the United States and its possessions.
[2] Includes 1 case of pneumonic plague.
[3] Pneumonic plague.
[4] Plague has been reported in China as follows: Information dated Aug. 18 reports an outbreak in West Hsingan (Khingan) and Southern Lungkiang Provinces. Information dated Sept. 2 states that 115 cases and 105 deaths occurred in Manchuria.
[5] Plague has also been reported in Hawaii Territory as follows: Week ended Aug. 14, 1937, 1 lot of 5 rats and 1 lot of 3 mice, by mass inoculation in Hamakua Mill Sector; week ended Nov. 20, 10 rats by mass inoculation in Omaopio, Makawao District, Maui Island; week ended Mar. 5, 1 plague-infected rat in Paauhau Sector, Hamakua District, Island of Hawaii.
[6] Imported.
[7] For 2 weeks.
[8] Plague infection proved in insect hosts as follows: *California*—Eldorado County, Aug. 31; Fresno County, Oct. 7-Nov. 5; San Bernardino County, July 12-Sept. 8; San Mateo County, July-Aug. 27; Santa Cruz County, Feb. 3, 1938. *Nevada*—Ormsby County, July 2-Aug. 20. *Utah*—Morgan County, reported Aug. 10.
[9] For 5 weeks ended Nov. 6, plague infection proved in pooled tissue from squirrels, chipmunks, and mice in Fresno County, Calif.
[10] For week ended Oct. 9, plague infection proved in pooled tissue from squirrels, chipmunks, and rats, and week ended Oct. 30, pooled tissue from squirrels, in Placer County, Calif.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

PLAGUE—Continued

[C indicates cases; D, deaths; P, present]

Place	Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Oct. 31–Nov. 27, 1937	Week ended— December 1937 4	11	18	25	January 1938 1	8	15	22	29	February 1938 5	12	19	26
United States—Continued.																	
California—Continued.																	
San Mateo County—Plague-infected fleas, lice, and ticks.																	
Santa Cruz County—Plague-infected fleas.																	
Montana: Madison County—Plague-infected squirrels.	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Nevada: [8] Ormsby County—Plague-infected fleas and lice.																	
Utah: [9]																	
Morgan County—Plague-infected fleas.																	
Wasatch County—Plague-infected ground squirrel.	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Washington: Adams County—Plague-infected ground squirrel. [11]																	

Place		August 1937	September 1937	October 1937	November 1937	December 1937	January 1938
Argentina:							
Cordoba Province	C	----	1	----	----	----	----
Salta Province	C	[8] 1	----	----	----	----	----
Brazil: [12] Pernambuco State	C	5	----	----	5	----	----
Indochina (French) (see also table above): Cochinchina	C	----	1	----	----	----	----
Madagascar (central region)	C	22	48	59	67	57	69
	D	22	47	59	65	56	65
Niger Territory	C	----	----	----	85	60	----
Peru	C	3	5	9	12	6	----
Ancash Department	C	----	----	----	3	----	----
Lambayeque Department	C	2	2	1	----	----	----
Libertad Department	C	1	----	2	1	----	----
Lima Department	C	----	3	6	8	6	----

[8] Pneumonic plague.

[9] Plague infection proved in insect hosts as follows: *California*—Eldorodo County, Aug. 31; Fresno County, Oct. 7–Nov. 5; San Bernandino County, July 12–Sept. 8; San Mateo County, July–Aug. 27: Santa Cruz County, Feb. 3, 1938. *Nevada*—Ormsby County, July 2–Aug. 20. *Utah*—Morgan County, reported Aug. 10.

[11] During the week ended Mar. 12, 1938, 1 plague-infected squirrel was reported in Adams County, Wash.

[12] For the year 1937, 35 cases of plague with 15 deaths were reported in Brazil as follows: Bahia State, 5 cases, 5 deaths; Ceara State, 2 cases; Parahyba State, 5 cases, 1 death; Pernambuco State, 23 cases, 9 deaths.

SMALLPOX

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Oct. 31–Nov. 27, 1937	Week ended— December 1937 4	11	18	25	January 1938 1	8	15	22	29	February 1938 5	12	19	26
Algeria: Algiers Department	C	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Angola. (See table below.)																		
Argentina. (See table below.)																		
Belgian Congo. (See table below.)																		
Bolivia. (See table below.)																		
Brazil:																		
Bahia (alastrim)	C	10	6	11	6	9	----	----	----	----	----	----	----	----	----	----	----	----
Porto Alegre (alastrim)	D	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Recife (alastrim)	C	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Santos	C	----	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----
British East Africa: Tanganyika	C	186	121	----	223	----	----	----	----	----	----	----	----	1	127	10	----	----
Canada:																		
Alberta	C	----	----	----	----	----	----	----	----	----	----	[1] 1	----	[1] 1	----	----	----	----
British Columbia	C	----	----	----	----	----	----	----	----	----	----	----	----	[1] 1	----	----	----	----
Quebec	C	----	----	----	[1] 1	----	----	----	----	----	----	----	----	----	----	----	----	----
Saskatchewan	C	[1] 1	----	----	----	----	----	----	----	----	----	[1] 1	----	----	----	----	----	----
China:																		
Canton [2]	C	----	----	----	1	----	----	1	1	----	----	----	----	----	----	----	----	----
Dairen	C	2	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Foochow	C	P	P	P	P	----	----	P	----	----	----	----	----	----	----	----	----	----
Hankow	C	1	----	----	----	----	----	----	----	----	----	----	----	2	----	----	----	----
Hong Kong	C	82	----	1	6	4	2	----	7	8	30	26	75	116	101	156	222	162
	D	----	----	----	----	----	----	----	----	----	15	22	----	70	88	83	199	132
Macao	C	----	----	----	----	----	----	----	----	----	----	----	----	----	----	2	----	----
Shanghai	C	2	1	----	----	----	1	----	----	----	----	2	3	----	----	----	6	3
Tientsin	C	----	----	----	----	----	----	1	----	----	----	----	----	----	----	----	----	----
Colombia (see also table below): Barranquilla	D	----	----	2	----	----	----	----	----	----	----	----	----	----	----	----	----	----
Ecuador: Guayaquil	C	20	3	13	4	----	2	----	1	2	1	----	1	----	----	----	----	1
Eritrea	C	----	28	52	16	----	----	----	----	----	----	----	----	----	----	----	----	----
France. (See table below.)																		
Great Britain: England and Wales—Chester County	C	----	----	----	1	----	----	----	----	----	----	----	----	----	----	----	----	----
Greece. (See table below).																		
Guatemala. (See table below.)																		

[1] For 2 weeks.

[2] A report dated Feb. 12, 1938, states that for the 3 weeks ended Feb. 12, 1938, 100 cases of smallpox were admitted to hospitals in Canton, China.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 1-28, 1937	Aug. 29-Sept. 25, 1937	Sept. 26-Oct. 30, 1937	Oct. 31-Nov. 27, 1937	Week ended— December 1937 4	11	18	25	January 1938 1	8	15	22	29	February 1938 5	12	19	26
India	C	3,026	1,738	1,756	1,804	718	959	1,205	1,048	1,587	1,662	1,744						
	D	910	461	429	408	147	224	297	290	507	506	541						
Assam	C	98	58	45	37	12	16	20	8	21	13	13	19	29	18	19	15	33
Bassein	C													1				
Bombay Presidency	C	177	181	154	130	102	83	205	180	229	208		292	401	523			
	D	53	38	33	41	27	28	51	59	57	60		91	108	150			
Bombay	C	28	47	41	73	50	43	66	110	82	92	164	163	189	222	249	233	246
	D	18	23	23	30	19	23	23	54	47	49	86	81	87	125	132	146	142
Calcutta	C	40	28	20	24	3	15	20	31	43	46	46	52	48	56	106	120	149
	D	16	17	14	13	2	11	13	17	31	35	34	31	46	27	77	76	93
Cawnpore	C										9		2	3	5	4	4	5
Central Provinces and Berar	C	61	44	26	7	1		8	6	2	9	11	22	7	39	46	55	90
Chittagong	C										1		2				1	
Delhi	C	7		1			1	2	3	2	[2]4		1	2	6	1	5	1
Karachi	C		[1]2		2	[1]1			3	3	[2]3	6	3	3		4	6	2
Madras Presidency	C	415	318	304	213	30	62	30	123	111	137	149						
	D	95	62	51	26	6	15	5	25	25	21	31						
Madras	C	102	76	74	50	10	10	19	49	58	50	64	107	80	76	71	58	43
Negapatam	C															6		
Northwest Frontier Province	C	76	27	154	380	16	113	139	149	277	106	88	202	75	32	39	46	43
Orissa Province	C	310	117	193	206	63	94	69	127	102	147	93	287	202	198	188	248	
Punjab	C	165	69	162	404	192	300	226	317	310	332	380	337	282	250	181	281	
Rangoon	C	[1]1		3	5		1		5	7	9	17	19	14	12	16	5	
Sind State	C	209	96	78	164	75	79	52	230	97	67	119	201	159	127	64	124	167
Indochina (French) (see also table below):																		
Tonkin Province	C								26		75	60			135	130	160	282
Haiphong	C				2		4	21	11	14	41	32	31	51	45	52	27	24
Hanoi	C								1	1		2	1	1	3	8		4
Saigon-Cholon	C													1			1	
Iran	C	3			2								4		6			
Teheran	C	1																

Iraq	C	5								5		6	1	1				
Baghdad	C															1		
Mexico (see also table below):																		
Chihuahua	C		1															
Durango	D			1											1			1
Mexico, D. F.	C	8	6	5	11	2						2				3		
Monterrey	C	1	2		1	1					1	1	2	1			1	
San Luis Potosi	D			1														
Torreon	C	3	1				1		1		1		5	1				
	D	7	3	5	4	1	2		4		2		1	1	1		1	
Vera Cruz	C					1												
Morocco. (See table below.)																		
Nigeria	C	71	11	156	29		50		86		104							
Nyasaland	C	12		31	11			3		3								
Panama Canal Zone: Colon	C			2														
Portugal (see also table below):																		
Lisbon	C	1	5	3	3		1		1			4			1		1	
Oporto	C		2															
Portuguese East Africa. (See table below.)																		
Salvador. (See table below.)																		
Senegal. (See table below.)																		
Siam	C	1								35	12	12	16	1				26
Sierra Leone	C	5		10														
Southern Rhodesia	C			4	121	12		3	99		10		3					
Straits Settlements: Singapore	C													1				
Sudan (Anglo-Egyptian)	C	6	27	64	88	14	13	18	19	44	28	2	81	127	22	25	9	
Union of South Africa. (See table below.)																		
Venezeula: Puerto Cabello.[4]																		

[3] Imported.

[4] A report dated Feb. 10, 1938, states that 16 cases of smallpox were reported in Puerto Cabello; information dated Feb. 21, states that 4,000 cases of smallpox (alastrim) were reported in Barquisimeto, Lara State, Venezuela, and that smallpox is present from Barquisimeto to Valencia and Marcay.

On vessels:

S. S. *Empress of Japan* at Kobe from Manila	1 case	Aug.	11, 1937
S. S. *Northern Prince* at New York from Rio de Janeiro	1 case	Aug.	19, 1937
S. S. *Empress of Asia* at Honolulu	1 case	Sept.	5, 1937
S. S. *Castalia* at Suez from Karachi and Bombay	1 case	Oct.	5, 1937
S. S. *Egra* at Rangoon from Calcutta	1 case	Nov.	16, 1937
S. S. *Anhui* at Singapore from Hong Kong	1 case	Jan.	19, 1938
S. S. *Rizwani* at Kamaran	1 case	Jan.	19, 1938
S. S. *Suisang* at Penang from Hong Kong and Singapore	1 case	Jan.	26, 1938

On vessels—Continued.

S. S. *Hong Siang* at Singapore from Amoy, Swatow, and Hong Kong	1 case	Jan.	26, 1938
S. S. *Trave* at Singapore from Hong Kong	1 case	Jan.	27, 1938
S. S. *Muinam* at Singapore from Hong Kong	1 case	Jan.	29, 1938
S. S. *Tatsuta Maru* at Honolulu	1 case	Feb.	4, 1938
S. S. *Circassia* at Aden from Bombay	1 case	Feb.	16, 1938
S. S. *Empress of Japan* at Honolulu	1 case	Feb.	21, 1938

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

SMALLPOX—Continued

[C indicates cases; D, deaths; P, present]

Place		August 1937	September 1937	October 1937	November 1937	December 1937	January 1938
Angola	C	12	18				
Argentina	C			3	1		
Belgian Congo	C	312	391	352	166	292	
Bolivia: La Paz	C		30				
China: Manchuria—Harbin	C					1	
Colombia (see also table above)	C	[1] 209					
France	C				2		
Greece: Salonika	C				3	7	10
Guatemala	C	1					
Indochina (French) (see also table above)	C	226	96	147	197	319	
	D	63	12	28	43	91	
Mexico (see also table above):							
Aguascalientes State	C		5				
Campeche State	C		1				
Chihuahua State	C		4		21		
Coahuila State	C		2		17		
Durango State	C		15		17		
Guanajuato State	C		7		38		
Hidalgo State	C		1				
Jalisco State	C		5				
Mexico State	C		3		3		
Mexico—Continued (see also table above):							
Mexico, D. F	C	9	11	5	17		
Mexico City	D	1	2				
Michoacan State	C	4	37		59		
Nayarit State	C		1				
Nuevo Leon State	C		2		6		
Queretaro State	C	1	5	1	2		
Sinaloa State	C		3				
Tabasco State	C		1		1		
Tlaxcala State	C		3		3		
Vera Cruz State	C		2	1	25		
Yucatan State	C				1		
Zacatecas State	C		1		7		
Morocco	C		1	1	2		
Portugal (see also table above)	C		61	53	52	18	
	D		8	4	4	3	
Portuguese East Africa	C				8		
Salvador	C						16
Union of South Africa:							
Cape Province	C					42	
Transvaal	C					41	

[1] For July and August.

TYPHUS FEVER

[C indicates cases; D, deaths; P, present]

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Week ended— November 1937				December 1937				January 1938					February 1938		
					6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19
Algeria:																				
Algiers Department	C	30	7	38	18	------	[1] 27	44	------	6	------	7	------	------	------	13	11	8	5	------
Algiers	C	3	------	15	------	------	------	------	------	------	------	------	------	------	------	------	------	2	------	------
Constantine Department	C	83	26	47	1	------	[1] 14	8	29	37	------	15	21	------	[1] 26	50	------	20	13	46
Bone	C	4	------	1	------	------	------	------	------	1	------	------	------	------	------	------	2	------	1	------
Constantine	C	7	2	7	------	------	------	------	------	------	------	------	------	------	------	1	------	4	20	------
Philippeville	C	------	------	2	------	------	------	1	------	------	------	------	------	------	------	------	------	1	1	------
Oran Department	C	7	4	------	------	------	[1] 13	3	2	------	------	20	1	------	[1] 3	------	1	6	2	------
Southern Territories	C	1	------	------	------	------	------	2	------	1	------	------	------	------	------	------	1	13	1	------
Australia: Brisbane	C	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------	------
Basutoland	C	9	6	3	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
British East Africa: Kenya	C	------	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------
Bulgaria	C	------	------	13	------	------	------	------	------	------	5	------	------	------	------	1	------	------	2	------
Chile	C	------	176	305	59	50	75	102	57	32	64	43	------	------	------	------	------	------	------	------
Antofagasta Province	C	------	1	------	1	1	1	1	------	------	------	------	------	------	------	------	------	------	------	------
Concepcion Province	C	16	7	4	------	1	1	------	1	------	------	------	------	------	------	------	------	------	------	------
Iquique	C	------	------	------	1	------	------	------	------	------	1	------	------	------	------	------	------	------	------	------
Linares Province	C	6	5	2	------	1	1	10	2	1	------	------	------	------	------	------	------	------	------	------
Malleco Province	C	8	6	4	2	------	1	------	------	3	------	------	------	------	------	------	------	------	------	------
Nuble Province	C	3	14	24	9	5	------	5	5	7	5	2	------	------	------	------	------	------	------	------
Santiago Province	C	151	114	230	35	40	65	83	44	20	57	36	------	------	------	------	------	------	------	------
Valparaiso	C	47	14	16	------	1	2	2	1	------	------	------	------	1	2	1	2	------	1	------
China (see also table below):																				
Canton	C	------	------	3	------	------	------	------	------	------	1	------	------	------	------	------	------	------	------	------
Dairen	C	------	------	1	------	------	------	2	------	------	------	------	------	------	------	------	1	------	------	------
Hankow	C	1	------	2	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------	------
Shanghai	C	------	2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Swatow	C	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Tientsin	C	1	3	1	4	------	1	2	4	------	------	------	1	------	------	------	------	------	------	------
Chosen. (See table below.)																				
Egypt:																				
Alexandria	C	13	4	4	3	1	3	------	2	------	------	1	1	------	------	------	------	------	------	1
Asyut Province	C	2	------	1	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------
Beheira Province	C	1	------	------	------	------	------	------	------	------	------	------	------	------	6	3	------	------	------	------
Beni-Suef Province	C	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Cairo	C	------	1	------	------	------	------	------	------	1	------	------	3	------	------	------	------	------	1	1
Dakahliya Province	C	3	------	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------

[1] For 2 weeks.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

TYPHUS FEVER—Continued

[C indicates cases; D, deaths; P, present]

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Week ended— November 1937				December 1937				January 1938					February 1938		
					6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19
Egypt—Continued.																				
Gharbiya Province	C														3					
Minufiya Province	C															3				
Minya Province	C	1																		
Qena Province	C														1					
Suez	C		2																	
Provinces	C		10	3	2	4		1	1		4	2	6	11	12	6	26	24	40	54
Eritrea: Asmara	C					2														
Germany: Frankfort-on-Main	C			1																
Great Britain—England and Wales—																				
Gloucester County	C						1													
Greece. (See table below.)																				
Guatemala. (See table below.)																				
Hawaii Territory: Honolulu	C	1	2	4			1				1		1	1					1	
Iran	C		1								4									
Latvia. (See table below.)																				
Libya. (See table below.)																				
Lithuania. (See table below.)																				
Mexico (see also table below):																				
Chihuahua	C							2												
Mexico, D. F	C	27	22	17	4	3	7	4	13	3	3	1		12	1				4	
Saltillo	D																		1	
San Luis Potosi	D																	1		
Tecamachalco	C												7							
Torreon	C					1											1			
Morocco (see also table below)	C	21	16	38	1		6	22	18	58	102	137	198	80	139	142	184	131	204	208
Casablanca	C	5		4							4	20		16	6		57	44	45	67
Netherlands: Rotterdam	C										[2]1									
Nigeria	C			2																
Palestine:																				
Haifa	C	4	11	16	3		2		3	3	2		2			1	1			
Jaffa	C	9	9	13	2	5	4	6			2	1			3	2		1	1	1
Panama Canal Zone. (See table below.)																				

Poland	C	43	26	53	12	10	23	23	37	40	35	29	54	98	78	87	79	112	76	-------
	D	4	-------	1	2	1	-------	2	-------	1	1	1	1	6	7	9	7	6	6	-------
Portugal. (See table below.)																				
Rumania. (See table below.)																				
Sierra Leone: Freetown	C	-------	-------	-------	-------	-------	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Straits Settlements: Singapore	C	-------	1	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Switzerland		-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
Trans-Jordan	C	-------	-------	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	2	-------	-------
Tunisia:																				
Tunis	C	10	7	3	-------	-------	3	-------	1	-------	-------	1	2	-------	-------	-------	-------	2	-------	1
Provinces	C	216	76	132	23	29	63	46	11	34	-------	12	12	26	80	62	104	37	32	83
Turkey. (See table below.)																				
Union of South Africa. (See table below.)																				
Yugoslavia: Belgrade	C	-------	-------	-------	1	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------
On vessel: S. S. *Blackhill* at Philippeville	C	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	-------	1	-------	-------	-------	-------

Place		August 1937	September 1937	October 1937	November 1937	December 1937	January 1938
China: Manchuria—Harbin	C	8	2	-------	-------	-------	-------
Chosen	C	-------	-------	19	-------	-------	-------
Greece	C	3	6	18	7	7	-------
Guatemala	C	10	6	2	-------	-------	3
Latvia	C	-------	1	-------	-------	-------	-------
Libya	C	-------	-------	-------	-------	-------	-------
Lithuania	C	-------	2	6	7	-------	-------
Mexico (see also table above):							
Aguascalientes State	C	-------	1	-------	1	-------	-------
Campeche State	C	-------	2	-------	-------	-------	-------
Coahuila State	C	-------	-------	-------	3	-------	-------
Durango State	C	-------	1	-------	8	-------	-------
Guanajuato State	C	-------	19	-------	22	-------	-------
Guerrero State	C	-------	-------	-------	2	-------	-------
Hidalgo State	C	3	4	2	19	-------	-------
Jalisco State	C	-------	2	-------	2	-------	-------
Mexico State	C	38	29	19	42	-------	-------
Mexico D. F.	C	27	29	14	20	-------	-------
Mexico City	D	3	4	-------	-------	-------	-------
Michoacan State	C	-------	5	-------	11	-------	-------

Place		August 1937	September 1937	October 1937	November 1937	December 1937	January 1938
Mexico—Continued.							
Oaxaca State	C	-------	-------	-------	3	-------	-------
Puebla State	C	-------	55	-------	9	-------	-------
Queretaro State	C	2	3	2	2	-------	-------
San Luis Potosi State	C	-------	6	4	-------	-------	-------
Tamaulipas State	C	-------	2	-------	-------	-------	-------
Tlaxcala State	C	-------	3	-------	-------	-------	-------
Vera Cruz State	C	-------	9	-------	-------	-------	-------
Zacatecas State	C	-------	2	-------	6	-------	-------
Morocco (see also table above)	C	25	16	39	47	914	633
Panama Canal Zone	C	1	1	-------	-------	-------	-------
Portugal	C	2	1	26	28	7	-------
Rumania	C	26	31	33	110	246	-------
Turkey	C	23	27	100	34	45	-------
Istanbul	C	2	4	-------	4	2	-------
Union of South Africa:							
Cape Province	C	81	-------	162	75	100	-------
Natal	C	2	-------	-------	9	1	-------
Orange Free State	C	2	-------	3	3	3	-------
Transvaal	C	-------	-------	5	1	1	-------

[1] Suspected.

CHOLERA, PLAGUE, SMALLPOX, TYPHUS FEVER, AND YELLOW FEVER—Continued

YELLOW FEVER

[C indicates cases; D, deaths; P, present]

Place		Aug. 1–28, 1937	Aug. 29–Sept. 25, 1937	Sept. 26–Oct. 30, 1937	Week ended—															
					November 1937				December 1937				January 1938					February 1938		
					6	13	20	27	4	11	18	25	1	8	15	22	29	5	12	19
Belgian Congo:[1]																				
Saratumba.[1]																				
Zongo [1]	C																		[2]7	
	D																		4	
Brazil:																				
Amazonas State	D	1																		
Matto Grosso State [3]	D																			
Minas Geraes State	D													1	2	7	6	10	2	
Para State [3]	D	1	1													1				
Rio de Janeiro State	D															1	3	2		
Santa Catharina State	D								1									1		
Sao Paulo State	C																		P	
Colombia:																				
Boyaca Department	C	1																		
	D	2		1							1									
Caldas Department	D		1																	
Cundinamarca Department	D	2	2												1					1
Intendencia of Meta—Villavicencio	D		1																	
Santander Department	C		2																	
	D	4	6	3						1		2								
Dahomey: Cotonou	C										[2]5									
French Equatorial Africa:																				
Bangui	D		1												1					
Fort Archambault	C		[2]2																	
Gambia: Georgetown	C														[2]1					
Gold Coast	C	9	3	4	[4]7			[2]1			2		[4]5	[4]4						
	D	4	2	1	2			[2]1			2									
Accra	C	1	[2]1										1							
Keta	C																			
Ivory Coast:																				
Abidjan	C																	1		[2]1
Agboville	C	1																		
Anyama	C													1						
Gaoua	C		[4]3						[2]1											
	D		1																	

Spao Plantations (near Bingerville).[5]																					
Touba	C	------	[2]1	[2]1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Nigeria	C	5	2	5	------	------	------	2	------	------	------	[2]1	1	------	1	------	------	------	------	------	------
	D	------	------	------	------	------	------	1	------	------	------	------	------	------	1	------	------	------	------	------	------
Paraguay: Asuncion	C	------	------	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Senegal	C	2	2	12	[6]8	2	------	2	1	------	1	1	------	------	------	------	------	------	------	------	[2]1
	D	1	------	------	1	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Dakar	C	------	------	1	[7]2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	[2]1
Rufisque	C	------	------	2	------	2	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------
Thies	C	------	------	4	------	------	------	1	------	------	------	------	------	------	------	------	------	------	------	------	------
Sudan (French)	C	------	------	------	------	------	------	------	------	------	------	------	1	------	------	------	------	------	------	------	------
San	C	------	------	------	------	------	------	------	------	------	------	1	1	------	------	------	------	------	------	------	------
Toukoto	C	------	------	------	------	[2]1	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

[1] Yellow fever has also been reported in Belgian Congo as follows: Week ended Mar. 5, 1938, 1 suspected case in Saratumba and 4 suspected cases with 1 death at Zongo.
[2] Suspected.
[3] See also reports of yellow fever in Brazil on pp. 216, 280, 361, and 404 of the PUBLIC HEALTH REPORTS for 1938, and in various issues for 1937.
[4] Includes 1 suspected case.
[5] During the week ended Mar. 12, 1938, 2 cases of yellow fever with 1 death were reported in Spao Plantations near Bingerville, Ivory Coast.
[6] Includes 3 suspected cases.
[7] Imported.